MECHANISMS IN BULLYING AND VICTIMIZATION

TARGET SPECIFIC EMPATHY AND HUMAN CHARACTERISTICS ATTRIBUTION

TIRZA VAN NOORDEN

Behavioural Science Institute

Mechanisms in Bullying and Victimization: Target Specific Empathy and Human Characteristics Attribution

Tirza H. J. van Noorden

ISBN: 978-94-6299-353-2

Printing: Ridderprint BV - www.ridderprint.nl
Lay-out: Nikki Vermeulen - www.ridderprint.nl
Cover: Moniek van der Zanden

Mechanisms in Bullying and Victimization: Target Specific Empathy and Human Characteristics Attribution

Proefschrift

ter verkrijging van de graad van doctor
aan de Radboud Universiteit Nijmegen
op gezag van de rector magnificus,
volgens besluit van het college van decanen
in het openbaar te verdedigen op vrijdag 24 juni 2016
om 12.30 uur precies

door

Tirza Hubertina Johanna van Noorden

geboren op 1 april 1987
te Voorburg

Promotoren

Prof. dr. A.H.N. Cillessen

Prof. dr. W.M. Bukowski (Concordia University, Montreal, Canada)

Copromotoren

Dr. G.J.T. Haselager

Dr. T.A.M. Lansu

Manuscriptcommissie

Prof. dr. R.H.J. Scholte

Prof. dr. S.J.T. Branje (Universiteit Utrecht)

Prof. dr. D.R. Veenstra (Rijksuniversiteit Groningen)

Dr. S.C.S Caravita (Università Cattolica del Sacro Cuore, Milaan, Italië)

Dr. T. Olthof (Vrije Universiteit Amsterdam)

The research in this dissertation was funded by the Netherlands Organisation for Scientific Research (NWO), as part of the Youth and Family (Jeugd en Gezin) program [NWO Grant No. 431-09-029].

CONTENTS

Chapter 1

General Introduction

Imagine that you are at a friend's birthday party. While enjoying some cake, you see your friend's 10-year-old niece laughing and running around with one of the other children. When her playmate suddenly falls and scrapes his knee, your friend's niece rushes over to comfort the hurt child. When commenting to your friend about the girl's compassionate response, you are surprised to hear that her parents are meeting her teacher next week to discuss her bullying of a classmate. You wonder how this child can be so kind to one peer while supposedly harming another.

Even though children already learn at a very young age that bullying is wrong, it is a common and persistent problem in classrooms. Depending on the definition and measurement, prevalence estimates of children involved in bullying and victimization may greatly vary (e.g., Swearer et al., 2010). Studies conducted in the Netherlands have revealed that 6-20% of Dutch children bully others, 9-15% are victimized, and another 2-10% both bully and are bullied (Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007; Veenstra et al., 2005). This prevalence is a worrying fact, especially when we look at the impact of bullying and victimization on the well-being of children. Victims may suffer from severe consequences, which include – but are not limited to – depression, social isolation, anxiety, and low self-esteem, even when the victimization has stopped (for reviews see Arseneault, Bowes, & Shakoor, 2010; Hawker & Boulton, 2000; Isaacs, Card & Hodges, 2001; Reijntjes, Kamphuis, Prinzie, & Telch, 2010). In addition, bullies may also face negative consequences, such as delinquency, violence, and substance abuse (for reviews see Stassen Berger, 2007; Ttofi, Farrington, Lösel, & Loeber, 2011; Ttofi, Farrington, & Lösel, 2012; Rodkin, Espelage, & Hanish, 2015). It is therefore important to understand the mechanisms in bullying and victimization.

Two processes that appear to be involved in harmful behavior towards others are empathy – the understanding and experience of others' emotions – and human characteristics attribution to others – the extent to which people attribute characteristics that are unique to humans or inherent to human nature. In adults, aggression has been negatively linked to empathy and human characteristics attribution. However, previous research addressing the specific association of children's bullying involvement (bullying and victimization) with empathy has resulted in inconsistent findings. Children's attribution of human characteristics has received little attention and has yet to be investigated in the context of bullying involvement. Additional knowledge on how bullying involvement is associated with empathy and the attribution of human characteristics may be used to reduce bullying and victimization by improving bullying prevention and intervention strategies.

Insight in the overall levels of empathy and human characteristics attribution can help us understand why some children are involved in bullying. Such general dispositions, however, cannot explain why these children harm *certain* peers, rather than *all* peers. This suggests that children distinguish between peers, which corresponds with the interpersonal

nature of both empathy and human characteristics attribution. That is, both constructs inherently target specific others: Empathy involves understanding and experiencing another person's emotions, and human characteristics attribution involves ascribing human characteristics to another person. Children involved in bullying may selectively experience more empathy or attribute more human characteristics towards some peers than towards others, independently from their overall levels of empathy and human characteristics attribution. Therefore, the main aim of the present dissertation is to investigate how bullying involvement of the child and of the target is associated with empathy and human characteristics attribution.

BULLYING AND VICTIMIZATION

Bullying has been defined as a subtype of aggressive behavior in which an individual or group of individuals intentionally attacks, humiliates, and/or excludes a relatively powerless person repeatedly and over time (Olweus, 2010); victimization can be defined as being the recipient of bullying by others. The definition of bullying emphasizes three core elements that distinguish bullying from aggression, teasing, and other negative social behaviors.[1] First, bullying is *intentional* in the sense that children who bully cause harm to others on purpose to achieve particular goals such as gaining status and dominance over others (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). This intentional element suggests that bullying is a goal-directed, strategic behavior (Veenstra, Lindenberg, Munniksma, & Dijkstra, 2010; Volk, Camilleri, Dane, & Marini, 2012). Second, there is a *power imbalance*, which is reflected in the difficulty victims experience to defend themselves against the bullies. This power imbalance does not necessarily imply physical strength, but may also take place on a psychological or social level. This is illustrated in the different forms that bullying can take on, with the most common being physical (e.g., attacking, hitting, biting), verbal (e.g., name calling), relational (e.g., gossiping, social exclusion), and cyberbullying (through electronic means; e.g., Stassen Berger, 2007). Third, the *repetition* element indicates that bullying occurs systematically with multiple incidents over time. Aggressive incidents that occur only once or twice in total are typically not considered to be bullying.

Whereas most children involved in bullying can either be identified as bullies or as victims, there are also children who bully others and are bullied by others. These bully/victims have been argued to suffer the most: they are most frequently rejected, most troubled by anger and depression, and are least likely to experience social support (for a review see Stassen Berger, 2007). These outcomes indicate that bully/victims need to be treated as a distinct group from children who bully *or* are bullied. This idea finds support from recent findings on the perception of children involved in bullying and/or victimization,

1 For a critical review of the definition and involved core elements of bullying, see Volk, Dane, and Marini (2015).

with bully/victims perceiving the most bullying in ambiguous situations across varying abstraction levels (Pouwels, Scholte, van Noorden, & Cillessen, 2016). Therefore, the present dissertation addresses bullying involvement in terms of children involved in bullying and/or victimization.

EMPATHY

Cognitive and Affective Empathy in the Context of Bullying Involvement

Empathy is considered to be a fundamental social skill that is positively associated with prosocial behavior (for a review see Eisenberg & Miller, 1987). Along this line, empathy has been assumed to contribute to the inhibition of antisocial behavior (e.g., Feshbach & Feshbach, 1982). However, studies directly assessing the association between bullying involvement and empathy have revealed diverging results, depending on the type of bullying involvement (e.g., bullying, victimization, defending, and bystanding) as well as on the form of bullying (e.g., physical, verbal, relational, and cyberbullying). In addition, the conceptualization of empathy is important. That is, empathy is typically conceptualized as a multidimensional construct with a cognitive and an affective component (Cohen & Strayer, 1996; Davis, 1983). Cognitive empathy refers to a person's ability to *comprehend* another person's emotions (e.g., Hogan, 1969), whereas affective empathy refers to a person's capacity to *experience* another person's emotions (e.g., Mehrabian & Epstein, 1972).

Even when taking the variations in bullying involvement types and forms as well as empathy dimensions into account, some inconsistencies remain. For example, Caravita, Di Blasio, and Salmivalli (2009) found that bullying was negatively correlated with cognitive empathy but found no association with affective empathy, whereas Stavrinides, Georgiou, and Theofanous (2010) found the reversed pattern. One factor that may contribute to these contrasting results is the way in which bullying involvement is operationalized. Based on the repetition element in the definition of bullying, the classification of bullying and victimization is often determined by the frequency of incidents. However, various thresholds have been applied across studies, leading aggressive incidents to be classified as bullying when they occur for example once or twice in total (e.g., Jolliffe & Farrington, 2006b, 2011; Sticca, Ruggieri, Alsaker, & Perren, 2013) or 2-3 times a month (e.g., Park, 2013; Williford, Boulton, & Jenson, 2014). Previous research has found that children who are involved in bullying have less empathy than children who are not involved in bullying but only when they bully frequently (i.e., more than once or twice in total; Jolliffe & Farrington, 2006b, 2011). This finding demonstrates that the frequency threshold affects the association between bullying and empathy. Therefore, the inconsistent findings regarding the associations of bullying and victimization with empathy may partly be caused by variations in frequency thresholds used to identify bullying involvement.

The frequency of bullying and victimization is often implicitly assumed to be an indication of the severity (e.g., Borg, 1999; Boulton & Underwood, 1992; Slee, 1994). However, Chen, Cheng, Wang, and Hsueh (2013) recently found that the frequency of adolescents' victimization is unrelated to the perceived severity of their victimization, indicating that adolescents do not necessarily perceive frequent victimization to be more severe or occasional victimization to be less severe. Although their study only addressed victimization, similar distinctions may exist between the frequency and the perceived severity of bullying. As of yet, it is unclear whether the operationalization of bullying involvement in terms of frequency or perceived severity affects the association between bullying involvement and empathy.

Distinguishing Between Empathy Targets

Individual differences in empathy can explain why some children bully their peers whereas other children do not, but they do not explain why these children bully some peers but not others. Explaining these target differences requires a different approach that takes the interpersonal nature of empathy into account. That is, by definition, empathy, as the understanding and experiencing of *another person's* emotions, needs a target. However, within bullying research, empathy is typically measured toward others in general, averaged across a wide variety of target categories, including friends, classmates, loved ones, peers, people who are worse off, strangers, and simply others in general (e.g., Davis, 1980; Jolliffe & Farrington, 2006a).

Previous research on adults provides evidence for target specific empathy. For example, adults find it easier to accurately infer (Stinson & Ickes, 1992) and share (Meyer et al., 2013) the emotions and feelings of friends than of strangers. Also children distinguish between empathy targets as evidenced by differences in empathy for same-sex and other-sex peers (Bryant, 1982; Olweus & Endresen, 1998; Feshbach & Roe, 1968). The distinction between empathy targets is also found within the context of bullying. Endresen and Olweus (2001) found that bullying was negatively associated with empathy, but only when the target was a same-sex peer. Given the finding that the association between a child's bullying involvement and empathy depends on the target's gender, it is quite likely that this association also depends on the target's bullying involvement.

PART 1 OF THE PRESENT DISSERTATION

The first part of the present dissertation deals with the ambiguities and missing links in previous research by presenting a systematic review and several empirical studies on the association between bullying involvement and empathy. First, to offer a clear overview of previous findings, Chapter 2 presents a systematic review of all the available research on

the association between bullying involvement and empathy. It accounts for different forms of empathy (cognitive and affective), different types of bullying involvement (bullying, victimization, defending, and bystanding), and different forms of bullying (physical, verbal, relational, and cyber). A potential contributor to the inconsistent findings is the way bullying is operationalized. There are reasons to assume that the association between bullying involvement and empathy varies when the identification of bullying involvement relies on the frequency versus on the perceived severity. Therefore, Chapter 3 describes an empirical investigation of the unique associations of the frequency and perceived severity of both bullying and victimization with cognitive and affective empathy. In addition to examining individual differences in empathy based on children's own bullying involvement, the present dissertation examines target differences in empathy based on the target's bullying involvement. Specifically, Chapter 4 presents an empirical investigation of the cognitive and affective empathy of bullies, victims, bully/victims, and noninvolved children towards each other.

HUMAN CHARACTERISTICS ATTRIBUTIONS

How Good People can do Bad Things (Without Feeling Bad)

In order to further reduce the prevalence and negative consequences of bullying and victimization, it is important to know what enables children to bully others even though they know it is wrong. Throughout childhood, children form moral standards based on observations and instructions that provide guidance for the regulation of their moral behavior. According to Bandura's social cognitive theory (1986, 1991), these internal moral standards serve a self-regulatory role, guiding behavior through the anticipation of self-censure (e.g., feelings of remorse, guilt, and shame) upon violation of these standards (e.g., bullying). However, this moral self-regulation can be activated and deactivated selectively by using cognitive mechanisms to reconstruct and justify one's behavior, making the behavior appear less harmful. This social-cognitive process, through which ordinary people violate their moral standards and commit negative actions against others without self-censure, is called moral disengagement (e.g., Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Bandura and colleagues (1996) identified eight mechanisms of moral disengagement: moral justification, advantageous comparison, euphemistic labeling, displacement of responsibility, diffusion of responsibility, misrepresenting or disregarding the consequences, blaming the victim, and dehumanizing the victim. Despite its original conceptualization as a multidimensional construct consisting of eight mechanisms, moral disengagement is mostly treated as a single entity (Bandura et al., 1996; Pelton, Gound, Forehand, & Brody, 2004).

Bandura and colleagues (1996) acknowledged the importance of the target in moral disengagement by stating that "the strength of moral self-sanctions depends partly on

how perpetrators view the people they mistreat" (p. 366). Perceiving people as human beings activates empathic emotional responses through perceived similarity (Bandura, 1992; McHugh, Smith, & Lanzetta, 1982), increasing the likelihood of feelings of remorse, guilt, and shame after mistreating them. However, such self-censure can be prevented by stripping others of their human qualities – no longer viewing them as persons with feelings, hopes, and concerns (Kelman, 1973). This is the dehumanization mechanism of moral disengagement.

Although there is an abundance of research indicating that bullying is positively associated with overall moral disengagement (e.g., Gini, Pozzoli, & Bussey, 2014; Gini, Pozzoli, & Hauser, 2011; Gini, Pozzoli, & Hymel, 2014; Hymel, Rocke-Henderson, & Bonanno, 2005; Menesini et al., 2003; Obermann, 2011; Perren, Gutzwiller-Helfenfinger, Malti, & Hymel, 2012; Thornberg & Jungert, 2013), it is unclear how bullying is associated with the target-oriented dehumanization mechanism specifically. The only information available comes from a study by Pozzoli, Gini, and Vieno (2012), who investigated the associations between bullying and different sets of moral disengagement, combining the dehumanizing the victim and blaming the victim mechanisms. Their results revealed that there was no association between bullying and dehumanizing/blaming the victim. This is in contrast to the findings of Bandura, Underwood, and Fromson (1975), who found that adults acted more aggressively towards dehumanized subjects compared to humanized subjects. Taking everything together, it remains unclear whether the extent to which someone is seen as human is associated with children's bullying involvement.

Human Characteristics Attribution as a New Approach to Dehumanization

Within Bandura's moral disengagement theory (1986, 1991), dehumanization is defined as the general denial of another person's humanness. Haslam (2006) introduced a new approach to dehumanization, contextualizing it in terms of the denial of specific human characteristics. Central to this approach is the conceptualization of human characteristics belonging to two dimensions of humanness: *human uniqueness* and *human nature*. Uniquely human characteristics define the boundary that separates humans from animals and deal with civility, refinement, moral sensibility, rationality or logic, and maturity as well as secondary emotions (e.g., pride and shame). Human nature characteristics are central features that distinguish humans from machines and focus on emotional responsiveness, interpersonal warmth, cognitive openness, agency or individuality, and depth. Denying both desirable and undesirable uniquely human characteristics in others is called animalistic dehumanization; denying desirable and undesirable human nature characteristics is called mechanistic dehumanization.

As of yet, there are no studies on the attribution of human characteristics in the context of bullying and victimization, nor are there direct comparisons between moral disengagement and the attribution of human characteristics from which such insight can be deduced. However, research among adults indirectly suggests that the bullying involvement and the attribution of human characteristics may be associated. For example, Castona and Giner-Sorolla (2006) found that people attributed fewer human characteristics to members of a group when they believed that members of their own group (the ingroup) were responsible for the deaths of these outgroup members. This finding suggests that the aggression level of the ingroup influences the attribution of human characteristics to others. A study by Bastian and Haslam (2010) on social exclusion – which can be identified as a form of bullying – offers insight in the association between victimization and human characteristics attribution. It revealed that people attributed fewer human nature characteristics to others when these others had previously socially excluded them from a group. More research is needed to understand the exact assocation between bullying involvement and the attribution of human characteristics, and how this is different from the association between bullying involvement and moral disengagement.

Distinguishing Between Attribution Targets

The few studies on children's attributions of human characteristics have all focused on differences between members of the ingroup compared to members of the outgroup. These studies consistently show that children attribute more human characteristics to members of their ingroup than to members of the outgroup. This tendency was observed when the outgroup members were children from another school (Brown, Eller, Leeds, & Stace, 2007), players from another nation's soccer team (Martin, Bennett, & Murray, 2008), immigrant children (Vezzali, Capozza, Stathi, & Giovannini, 2012), and African-American children when they themselves were Caucasian (Costello & Hodson, 2014). These findings indicate that children distinguish between targets and highlight the importance of taking the target into account. Whether the bullying involvement of the target plays a role in the association between bullying involvement and the attribution of human characteristics has yet to be investigated.

PART 2 OF THE PRESENT DISSERTATION

The second part of the present dissertation investigates how bullying involvement is associated with the attribution of human characteristics. Bandura's moral disengagement theory (1986, 1991) proposes that people use mechanisms to cognitively restructure their negative actions against others, with one of these mechanisms being dehumanization in which others are stripped from their overall humanness. More recently, Haslam (2006)

offered a new approach to dehumanization by focusing on the attribution of specific human characteristics. So far, the attribution of human characteristics by children has received little attention, and it is unclear how the attribution of human characteristics is associated with bullying involvement – differently from moral disengagement. Chapter 5 investigates how human characteristics attribution and moral disengagement are associated with bullying and victimization. Previous research shows that children distinguish between targets, but this has not yet been linked to their own bullying involvement. Therefore, Chapter 5 investigates how children involved in bullying attribute human characteristics specifically towards friends and nonfriends. In addition, Chapter 6 describes two empirical studies on the human characteristics attributions to familiar peers by children with different bullying roles. The first study investigates whether bullies, victims, bully/victims, and noninvolved children differ from each other in their attribution of human characteristics to familiar peers in general. The second study investigates whether bullies, victims, bully/victims, and noninvolved children differ from each other in their attribution of human characteristics towards each other.

Taking both parts together, the present dissertation investigates individual and target differences in the associations of bullying and victimization with empathy and human characteristics attribution. The findings will be integrated in Chapter 7, in which also suggestions for future research will be discussed along with theoretical and practical implications. Ultimately, the knowledge gained by the present dissertation may be used to improve bullying prevention and intervention programs to further reduce bullying and victimization.

PART 1

Bullying Involvement and Empathy

"There is a wisdom of the head, and there is a wisdom of the heart."
~ Charles Dickens

Chapter 2

Empathy and Involvement in Bullying in Children and Adolescents: A Systematic Review

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2015). Empathy and involvement in bullying in children and adolescents: A systematic review. *Journal of Youth and Adolescence, 44*, 637-657. doi: 10.1007/s10964-014-0135-6

ABSTRACT

Based on the premise that bullies are deficient in empathy or even lack it completely, bullying prevention and intervention programs often include empathy training. These programs are not always as effective as they aim to be, which may be caused by a failure to acknowledge the multidimensional nature of empathy as well as its complex association with involvement in bullying. To provide a clear overview of the research on the association between empathy and involvement in bullying, this article systematically reviews 40 studies on the association of cognitive empathy (24 studies) and affective empathy (38 studies) with four categories of involvement in bullying: bullying, victimization, defending, and bystanding. The results showed that bullying was negatively associated with cognitive and – in particular – affective empathy. Victimization was negatively associated with cognitive empathy but not with affective empathy. Defending was consistently positively associated with both types of empathy. Contradictory findings were observed in bystanding, with studies reporting both negative and positive associations with cognitive empathy, and studies reporting negative and no associations with affective empathy. Together, the findings stress the importance of the distinction between cognitive and affective empathy in involvement in bullying and suggest different intervention strategies for the four types of involvement in bullying.

Empathy is a fundamental human characteristic that influences both prosocial and antisocial behavior (Damon, Lerner, & Eisenberg, 2006). One critical form of antisocial behavior in children that has received increased amounts of attention from social scientists and from the general public is bullying. This attention is understandable given the prevalence of bullying (ranging from 13-75% depending on the measurement and definition of bullying; Swearer, Siebecker, Johnsen-Frerichs, & Wang, 2010) and the detrimental effects it has on children's physical and mental health (e.g., Ttofi & Farrington, 2008). This increased attention and corresponding awareness of associations between empathy and involvement in bullying have resulted in the incorporation of empathy training as an essential element in bullying prevention and intervention (e.g., see Farrington & Ttofi, 2009). Such programs are often very expensive and time consuming, but are not always as effective as they aim to be. One explanation may lie in the neglect of the multidimensional nature of empathy and the multiple forms of involvement in bullying. Therefore, the current study provides an overview of the relevant literature by systematically reviewing the association between empathy and involvement in bullying. Because both constructs refer to complex psychosocial phenomena, multiple dimensions of empathy as well as different categories of involvement in bullying and the different forms in which involvement in bullying can be expressed are taken into account.

Empathy

Empathy is typically conceptualized as a multidimensional construct with both cognitive and affective components. Its cognitive component refers to a person's ability to *comprehend* another person's emotions (e.g., Hogan, 1969); its affective component refers to a person's capacity to *experience* another person's emotions (e.g., Mehrabian & Epstein, 1972). Davis (1983) and Cohen and Strayer (1996) have defined empathy as including the ability to understand and experience how another person feels. This fusion of cognition and affect is seen in the claim that the experienced emotions must be congruent with the situation of the other person rather than one's own situation (e.g., Feshbach, 1975; Hoffman, 2000).

The emphasis on the perception of *feelings* of others differentiates empathy from the construct known as Theory of Mind (ToM). This construct is concerned with the attribution of mental – rather than emotional – states (Premack & Woodruff, 1978). The emphasis on the *congruence* between the person's affective state and the affective state of the target differentiates empathy from sympathy: Sympathy does not require the affective reaction to be identical. Instead, sympathy involves the appraisal of how one feels about the emotional state of another (e.g., Eisenberg & Strayer, 1987). Therefore, empathy and sympathy are distinct and separable constructs (e.g., Feshbach, 1975).

Numerous methods have been developed to measure empathy, including questionnaires, behavioral responses, and physiological responses (for an overview, see e.g., Chlopan,

McCain, Carbonell, & Hagan, 1985; Eisenberg & Fabes, 1990). In light of the recognition of the multidimensional nature of empathy, questionnaires typically assess either cognitive or affective empathy or both (e.g., Bonino, Lo Coco, & Tani, 1998; Bryant, 1982; Davis, 1980, 1983; Jolliffe & Farrington, 2006a; Mehrabian & Epstein, 1972; Olweus & Endresen, 1998). Although many questionnaires were originally designed as self-reports, they alternatively can be adjusted and used as teacher-, parent-, or peer-reports. Previous research using questionnaires has found that the reported amount of empathy tends to increase with age up to mid-elementary school and that, in general, girls seem to be more empathic than boys (e.g., Eisenberg & Lennon, 1983; Lennon & Eisenberg, 1987).

Involvement in Bullying

With research by Olweus (1991, 1993) at its foundation, the definition of bullying has become more extensive over the years. Bullying has been defined as a subtype of aggressive behavior in which an individual or group of individuals intentionally attacks, humiliates, and/or excludes a relatively powerless person repeatedly and over time (Olweus, 2010; Salmivalli, 2010; Salmivalli & Peets, 2009). Bullying is often regarded as a form of proactive aggression (e.g., Coie, Dodge, Terry, & Wright, 1991) as it is used to achieve particular goals such as gaining dominance over others. Whereas bullying and aggression both require the intention of a negative action, bullying is distinguished from aggression by the repetition over time and by the structural power imbalance between the perpetrator and the target. This power imbalance does not necessarily imply physical strength, but may also reflect psychological or social issues. This imbalance is manifested in the different forms that bullying can take, with the most common being physical (e.g., attacking, hitting, biting), verbal (e.g., name calling), relational (e.g., gossiping, social exclusion), and cyberbullying (through electronic means). Regarding this latter form of bullying, it is argued that cyberbullying can be identified using the general definition of bullying based on the intention, repetition, and power imbalance elements (e.g., Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014), whereas others argue that anonymity and publicity need to be added as essential elements of cyberbullying (e.g., Thomas, Connor, & Scott, 2015). Previous research indicates that findings on cyberbullying may depend on the definition and the means through which cyberbullying takes place (e.g., email, text messaging, see Rivers & Noret, 2010). These different forms of bullying can take place in two modes: direct or indirect, with the perpetrator aiming to harm the target directly in his or her presence or via the target's relationships (for a theoretical review on the difference between relational and indirect aggression, see Archer, 2001). Although physical and verbal bullying are often considered to be direct bullying and relational bullying to be indirect bullying (Wang, Iannotti, & Nansel, 2009), the mode is not inherent to the form as, for example, social exclusion can take place in the presence of the target. Therefore, when discussing specific

studies throughout this article, the original descriptions of the form or mode have been adopted to avoid confusion or subjective interpretation.

Bullying involves at least two people, specifically a perpetrator and a target (i.e., a bully and a victim). In spite of this dyadic core, incidents of bullying can involve multiple bullies and/or multiple victims. Moreover, bullying events rarely happen in isolation but almost always occur in the presence of peers (O'Connell, Pepler, & Craig, 1999), making it a group process (for a review, see Salmivalli, 2010). Therefore, bullying in schools is collective by nature and based on social relationships in the group. It may be studied as a relationship between individuals taking on different roles or having different roles assigned to them (Lagerspetz, Björkqvist, Berts, & King, 1982). Salmivalli, Lagerspetz, Björkqvist, Österman, and Kaukiainen (1996) distinguished six roles in involvement in bullying: bully (actively takes initiative), assistant (follows or assists bully), reinforcer (encourages bully), victim (target of bullying), defender (helps or takes sides with victim), and outsider/bystander (does nothing, is not involved, or does not know). It is also possible for children to have multiple roles. For example, children can be both a bully in one situation and a victim in another. These bully/victims should be seen as a distinctive group of children, who are characterized by distinct patterns of social behavior and psychosocial adjustment and seem to experience the negative outcomes associated with involvement in bullying to a greater extent than bullies and victims (Schwartz, Proctor, & Chien, 2001).

Involvement in bullying can be assessed with various measures (e.g., questionnaires, observations, diaries, interviews, and public reports) that rely on different informants, with the most common being self-reports, peer-reports, teacher-reports, and observations (Card & Hodges, 2008; Stassen Berger, 2007). Although some of these measures are moderately associated (e.g., peer- and teacher-reports; Cornell & Brockenbrough, 2004), overall the associations between the different methods tend to be weak (Card & Hodges, 2008; Pellegrini & Bartini, 2000). Despite the low correspondence between measurements, it is generally found that bullying and victimization are more common among boys than among girls (Stassen Berger, 2007). Both bullying and victimization decrease from primary to middle school (e.g., Olweus, 1993), although bullying seems to first increase with the transition to middle school and then decrease (Pellegrini & Long, 2002). As far as we know, there are no studies that have investigated the development of defending or bystanding.

Empathy and Bullying

Currently, the association between empathy and bullying is unclear. In general, it has been well established that elevated levels of empathy are associated with prosocial behavior (e.g., Eisenberg & Miller, 1987), yet findings on the association between empathy and antisocial behavior have been less conclusive. Three reviews have summarized the main findings on this issue. Miller and Eisenberg (1988) reviewed 43 studies on the association between

empathy and antisocial behavior. Empathy was operationalized as affective empathy and measured in a number of ways, including picture/story presentations, facial and gesture reactions, behavioral responses to experimental induction, and questionnaires. Miller and Eisenberg found that affective empathy was negatively associated with antisocial behavior, but only when empathy was measured with questionnaires. They attributed this result to the age of the participants, as questionnaires are more commonly used in adolescents and adults.

In a more recent meta-analysis, Jolliffe and Farrington (2004) reviewed 35 studies relating cognitive and affective empathy to a more specific form of antisocial behavior – offending (i.e., an act that, if detected, would be serious enough to warrant legal action that could result in a conviction). Only studies that employed questionnaire methods of assessing empathy were included. The investigators found a negative association between empathy and offending that was stronger for cognitive empathy than for affective empathy.

Lovett and Sheffield (2007) reviewed 17 studies that examined the association between affective empathy and aggressive or delinquent behavior specifically in children and adolescents. They distinguished behavioral measures and self-report measures of empathy and uncovered incongruent findings between and within the two types of measures and the two age groups. Lovett and Sheffield concluded that there was a negative association between affective empathy and offending but only in older children and adolescents and not in younger children. Similar to the finding of Miller and Eisenberg (1988), this negative association was most robust when empathy was assessed with questionnaires.

One of the 17 questionnaire studies in adolescent samples reviewed by Lovett and Sheffield (2007) was conducted by Endresen and Olweus (2001), who found a negative and relatively weak association between empathy and bullying. Their study was the first to assess a direct link between empathy and bullying. Since 2001, several other studies have examined the association between empathy and involvement in bullying, focusing on different components of empathy (cognitive, affective), types of involvement in bullying (e.g., bullying, victimization, defending, bystanding), and forms of bullying (e.g., physical, verbal, relational, cyberbullying). In addition, a number of bullying intervention programs have incorporated empathy as an essential element to reduce bullying (for an overview, see Farrington & Ttofi, 2009), based on the premise that bullies are deficient in empathy or even lack it completely. However, this premise disregards the distinction between cognitive and affective empathy, which might have implications for intervention. Also, despite the notion of bullying as a group process, little attention is typically paid to the association between empathy and other types of involvement in bullying, such as victimization, defending, and bystanding. This calls for a cohesive integration of the findings concerning the link between empathy and bullying.

The Current Study

The objective of this study was to present a systematic review of the associations of cognitive and affective empathy with different involvement in bullying types and bullying forms. Within this review, involvement in bullying was categorized in four types: 1) "Bullying", including bully, assistant, and reinforcer roles, 2) "Victimization", dealing with victim roles, 3) "Defending", including helper, defender, intervener, mediator, and consoler roles, 4) "Bystanding", including passive bystander, outsider, and noninvolved roles. In this review, we investigated whether bullying, victimization, defending, and bystanding are associated with specific cognitive and affective empathy patterns. The results may serve as a basis for further research on empathy and bullying, and also for bullying interventions that target involvement in bullying.

METHOD

Inclusion Criteria

Studies were included in the review if (a) they included direct measures of bullying, victimization, defending, or bystanding behavior and of cognitive and/or affective empathy; (b) the participants were not older than 18 years and were drawn from a general population (no disorders, diseases, or criminality involved); (c) they used an empirical design that employed naturalistic observation or surveys (i.e., no intervention studies); (d) reported effects were not due to experimental or intervention effects (although articles that reported pre-test measurements were included); and (e) were published in an English-language peer reviewed journal.

Search Strategies

The literature search and selection were conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009), using a three step procedure to identify relevant studies. First, the relevant databases (i.e., PsychInfo, Web of Science, Scopus) were searched to identify studies that met the inclusion criteria as outlined above. All the possible variations of the words bullying or victimization (i.e., "bull*", "victim*, "cyberbull*", "cybervictim*") were entered simultaneously with all possible variations of the word empathy (i.e., "empath*"). Search areas included the title, abstract, key words, and topic. Second, the reference lists of the studies identified in the first step were reviewed to identify further relevant studies. Third, the reference lists from the three extant reviews (i.e., Jolliffe & Farrington, 2004; Lovett & Sheffield, 2007; Miller & Eisenberg, 1988) were examined to find additional papers.

Selection Results

Entering the search assignment in PsychInfo, Web of Science, and Scopus resulted in 2442 hits (1020, 604, and 818 hits respectively). Removing the 841 duplicates yielded 1601 unique references. The reference lists of the selected articles and related reviews did not yield additional articles that had not yet been identified in the databases search. The first and second authors independently determined from the titles and abstracts if the inclusion criteria were met. When it was unclear from the titles or abstracts whether all inclusion criteria were met, references were included for further inspection. This resulted in the identification of 160 potentially relevant articles. Further screening of the full-text articles using the same criteria reduced the number of studies judged to be relevant for the review – independently by one or both of the assessors – to 40. The selected studies covered different components of empathy, different types of involvement in bullying, different forms of bullying, multiple measures of empathy and involvement in bullying, multiple informants of empathy and involvement in bullying, as well as cross-sectional and longitudinal data, all involving "healthy" children and adolescents not older than 18 years. For an overview of the literature search and selection process, see Figure 2.1.

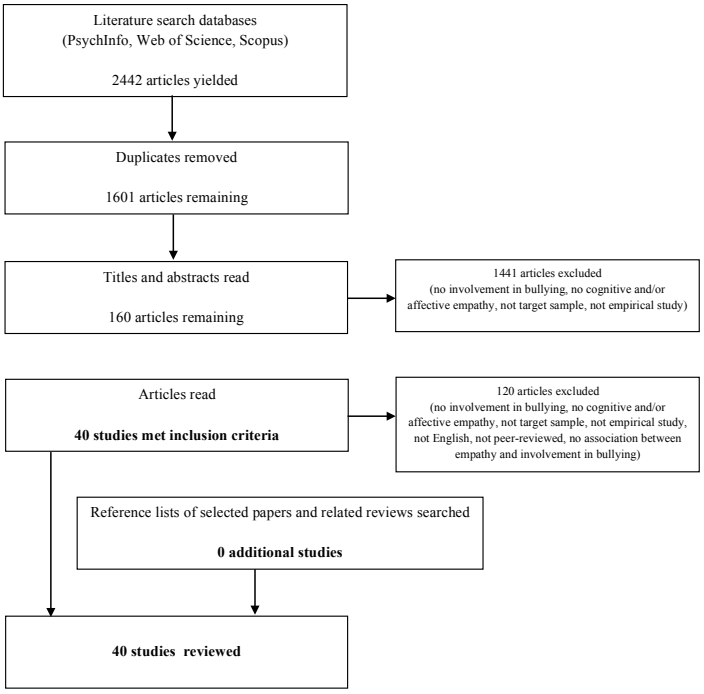

Figure 2.1. An adapted PRISMA flow diagram of the literature search and selection process for inclusion in the systematic review. doi: 10.1371/journal.pmed.1000097.g001

RESULTS

About half of the 40 target articles assessed both the cognitive and affective component of empathy, with only two studies focusing solely on cognitive empathy and 16 focusing solely on affective empathy. Below, we discuss the findings for cognitive and affective empathy separately as well as highlight the similarities and differences between cognitive and affective empathy in studies investigating both empathy components.

In the selected studies, each component of empathy was investigated with multiple empathy measures that were all designed as self-reports and questionnaire-based rather than behavioral observations. Table 2.1 includes a description of the 9 measures used in the selected studies.

For each component of empathy (cognitive, affective), the findings concerning bullying behavior are discussed separately for the four categories of involvement in bullying (bullying, victimization, defending, bystanding). Several studies examined more than one type of involvement in bullying and are therefore mentioned more than once within a specific component of empathy. In addition, we discuss findings on the direct comparison between involvement in bullying types when available. Different forms of bullying (e.g., physical, relational, cyberbullying) are also discussed if the information was provided.

Cognitive Empathy

In 24 of the 40 studies, the association between cognitive empathy and involvement in bullying was investigated (see Table 2.2).

Bullying. The results on the association between cognitive empathy and bullying vary between studies. Five studies reported a negative correlation between cognitive empathy and bullying in general (ranging from r = -.09 to r = -.52; Belacchi & Farina, 2012; Gano-Overway, 2013; Gini, Albiero, Benelli, & Altoè, 2007; Kokkinos & Kipritsi, 2012; Poteat, DiGiovanni, & Scheer, 2013): the lower their cognitive empathy, the more children bully. In one of these studies this negative association was only found for boys (r = -.19), whereas a positive association was found for girls (r = .18; Gini et al., 2007). In addition to a negative correlation, cognitive empathy was also found to negatively predict bullying (β = -.23 & -.36, β = -.25; Belacchi & Farina, 2012; Kokkinos & Kipritsi, 2012; respectively), although one study did not find this association (Ciucci & Baroncelli, 2013). In line with these findings, it was found that frequent bullies scored lower on cognitive empathy than nonbullies (d = -0.31), but this was only found for boys and not for girls (Jolliffe & Farrington, 2011).

Table 2.1 Empathy Measures Used in the Selected Studies

Empathy Measure	Empathy Type	Description	Item Example
Questionnaire Measure of Emotional Empathy (QMEE; Mehrabian and Epstein 1972)	Affective	33-item 6-point Likert scale	"It makes me sad to see a lonely stranger in a group"
Interpersonal Reactivity Index (IRI; Davis 1980, 1983)	Cognitive (Perspective-Taking & Fantasy), Affective (Empathic Concern & Personal Distress)	28-item 5-point Likert scale (7 items per subscale)	"I sometimes try to understand my friends better by imagining how things look from their perspective" (PT), "I often have tender, concerned feelings for people less fortunate than me" (EC)
Index of Empathy for Children and Adolescents (IECA; Bryant 1982)	Affective	22-item T/F scale (based on QMEE)	"It makes me sad to see a girl who can't find anyone to play with"
Empathic Responsiveness Questionnaire (ERQ; Olweus and Endresen 1998)	Affective (Empathic Concern for Girls/ Boys, Empathic Distress)	12-item 5-point Likert scale (4 items per subscale)	"Seeing a girl who can't find anyone to be with makes me feel sorry for her" (ECG), "Sometimes I feel a bit distressed when I read or hear about something sad" (ED)
How I Feel in Different Situations (HIFDS; Bonino et al. 1998)	Cognitive, Affective	12-item 4-point Likert scale (5 cognitive, 7 affective)	"I'm able to recognize, before many other children, that other people's feelings have changed" (C), "When somebody I care about is sad, I feel sad too" (A)
Empathic concern (Zhou et al. 2003)	Affective	5-item 6-point Likert scale	"When I see other adolescents who feel bad, I empathize with them"
Feeling & Thinking Instrument (F&T; Garton and Gringart 2005)	Cognitive, Affective	12-item 5-point Likert scale (originally 27 items based on IRI)	"When I am angry or upset at someone, I usually try to imagine what he or she is thinking or feeling" (C), "Emergency situations make me feel worried and upset" (A)
Basic Empathy Scale (BES; Jolliffe and Farrington 2006a)	Cognitive, Affective	20-item 5-point Likert scale (9 cognitive, 11 affective)	"It is hard for me to understand when my friends are sad" (C), "I usually feel calm when other people are scared" (A)
Selection from empathy instrument (Chaux et al. unpublished)	Affective	5-item 4-point Likert scale (selection from larger set)	''When a classmate is sad because she/he does not have someone to be with, do you feel bad?''

Table 2.2 *Cognitive Empathy Studies*

Study	Sample	Cognitive Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Almeida, Correia, Marinho, & Garcia (2012)*	*N* = 1751 (52% ♀), 11-20 years, Grades 7-12	BES (cognitive scale) [Grade 7-9] IRI (PT) [Grade 10-12]	/	/	Grade 7-9: CV > NI & CB/V; CB = CV, NI & CB/V Grade 10-12: CV & NI > CB/V; CB = CV, NI & CB/V (all through phones only)
Ang & Goh (2010)*	*N* = 396 (55% ♀), 12-18 years	BES (cognitive scale)	/	Cyberbullying: 0	/
Belacchi & Farina (2012)*	*N* = 188 (46% ♀), 3-6 years	IRI (PT)	Bullying: - Victimization: 0 Defending: + Bystanding: -	Bullying: - Victimization: 0 Defending: 0 Bystanding: -	/
Caravita, Di Blasio, & Salmivalli (2009)*	*N* = 461 (49% ♀), 8-10 & 11-14 years, Grades 3-4 & 6-7	HIFDS (cognitive scale)	Bullying: 0 Childhood: +♂,0♀; Adolescent: 0 Defending: + Childhood: 0; Adolescent: 0	Bullying: Childhood: 0; Adolescent: + Defending: Childhood: 0; Adolescent: 0	/
Ciucci & Baroncelli (2013)*	*N* = 529 (53% ♀), 10-15 years, Grades 6 & 8	HIFDS (cognitive scale)	Grade 6 Bullying = 0 Grade 8 Bullying = - Grade 6 Victimization = 0 Grade 8 Victimization = 0	Grade 8 Bullying = 0	/
Espelage, Green & Polanin (2012)*	*N* = 346 (51% ♀), 6-7 years	IRI (PT)	Defending: +	Defending: +♂	/
Espelage, Mebane, & Adams (2004)*	*N* = 268 (50% ♀), Grades 6-8	IRI (PT)	Nonphysical Bullying: -	/	B = V = BV = N
Gano-Overway (2013)*	*N* = 528 (54% ♀), 10-15 years, Grades 6-8	BES (cognitive scale)	Bullying: -	/	/
Gini, Albiero, Benelli, & Altoè (2007)*	*N* = 318 (45% ♀), 12-14 years, Grades 7-8	IRI (PT)	Bullying: - (stronger for ♂) Defending: 0	/	/

Table 2.2 *Cognitive Empathy Studies (Continued)*

Study	Sample	Cognitive Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Gini, Albiero, Benelli, & Altoè (2008)*	*N* = 294 (46% ♀), 12-14 years	IRI (PT)	Defending: + Bystanding: +	/	/
Gleason, Jensen-Campbell, & Ickes (2009)*	*N* = 116 (50% ♀), 10-14 years, Grades 5-8	IRI (PT)	/	Relational Victimization: 0 Overt Victimization: 0	/
Jollife & Farrington (2006b)*	*N* = 720 (48% ♀), 13-17 years, Grade 10	BES (cognitive scale)	/	/	B < NB (♂♀); B = NB ♂ & ♀ Frequent B = Occasional B Physical B = NB; Verbal B = NB; Indirect B = NB
Jollife & Farrington (2011)*	*N* = 720 (48% ♀), 13-17 years, Grade 10	BES (cognitive scale)	/	/	B = NB Frequent B < NB ♂, Frequent B = NB ♀ Physical = Verbal = Indirect
Kokkinos & Kipritsi (2012)*	*N* = 206 (46 % ♀), 10-13 years, Grade 6	F&T (T)	Bullying: - Direct: -; Indirect: - Victimization: - Direct: 0; Indirect: -	Bullying: - Victimization: 0	/
Muñoz, Qualter, & Padgett (2011)*	*N* = 201 (50% ♀), 11-12 years	BES (cognitive scale)	Direct Bullying: - Indirect Bullying: 0	Direct Bullying: 0 Indirect Bullying: 0	/
Pettalia, Levin, & Dickinson (2013)*	*N* = 260 (59% ♀), 12-15 years, Grades 7-8	BES (cognitive scale)	/	/	CV = CB/V = CB; CV & CB/V > NI
Poteat, DiGiovanni, & Scheer (2013)*	*N* = 618 (55% ♀), Grades 9-12	IRI (PT)	Bullying: -	/	/
Poteat & Espelage (2005)*	*N* = 191 (52% ♀), Grade 8	IRI (PT)	Nonphysical Bullying: - Victimization: -	/	/
Pöyhönen, Juvonen, & Salmivalli (2010)*	*N* = 489 (53% ♀), 10 & 14 years, Grades 4 & 8	HIFDS (cognitive scale)	Defending: +	Defending: 0	/

Table 2.2 *Cognitive Empathy Studies (Continued)*

Study	Sample	Cognitive Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Renati, Berrone, & Zanetti (2012)*	*N* = 819 (67% ♀), mean 16 years	BES (cognitive scale)	/	/	CB = CV = CB/V = NI
Schultze-Krumbholz & Scheithauer (2009)	*N* = 71 (66% ♀), 12-16 years, Grades 7-8 & 10	IRI (PT)	/	/	CB < NI; CV < NI
Stavrinides, Georgiou, & Theofanous (2010)*	*N* = 205 (53% ♀), 11 years, Grade 6	BES (cognitive scale)	Bullying: 0	Bullying: 0 (both directions)	/
Topcu & Erdur-Baker (2012)*	*N* = 795 (57% ♀), 13-18 years old	BES (cognitive scale)	Relational Bullying: - Cyberbullying: -	/	/
Williford, Boulton, & Jenson (2014)	*N* = 462 (49% ♀), Grades 4-6	IRI (PT)	/	/	B & B/V = NI; V > NI

Note. * = studies assessing cognitive and affective empathy; + = positive association; - = negative association; 0 = no association; ♂ = boys only; ♀ = girls only, (♂♀) = boys and girls together; B = bullies; V = victims; B/V = bully/victims; NI = noninvolved; NB = nonbullies; C = cyber.

Directly comparing different age groups, it was found that cognitive empathy and bullying were not associated in Grade 6 children, whereas they were negatively associated in Grade 8 children (r = -.13; Ciucci & Baroncelli, 2013). In another study, cognitive empathy and bullying were not associated when taking children (8-10 years) and young adolescents (11-14) together (Caravita, Di Blasio, & Salmivalli, 2009). However, focusing on the younger group, a *positive* correlation was found for boys (r = .21). Cognitive empathy did not predict bullying in this younger group. Focusing on the older group, no correlation was found, but cognitive empathy *positively* predicted bullying for both boys (β = .22) and girls (β = .18) in the older age group. In contrast, in a short-term longitudinal study with two time points six months apart, cognitive empathy did not predict bullying, nor did bullying predict cognitive empathy (Stavrinides, Georgiou, & Theofanous, 2010). Bullies in general and occasional bullies (who bullied only once or twice) did not differ from nonbullies in cognitive empathy (Jolliffe & Farrington, 2006b, 2011).

Concerning different forms of bullying, no differences in cognitive empathy were found when comparing physical bullies, indirect bullies, and verbal bullies to nonbullies (Jolliffe & Farrington, 2006b, 2011). In contrast, a negative association with cognitive empathy was found for direct bullying (r = -.32, r = -.25; Kokkinos & Kipritsi, 2012; Muñoz, Qualter, & Padgett, 2011; respectively) and nonphysical bullying (r = -.28 for boys and -.25 for girls, r = -.44 for boys and -.40 for girls; Espelage, Mebane, & Adams, 2004; Poteat & Espelage, 2005; respectively). Relational bullying was found to be negatively associated with cognitive empathy (r = -.11; Topcu & Erdur-Baker, 2012). One study found a negative association between cognitive empathy and indirect bullying (r = -.17; Kokkinos & Kipritsi, 2012), whereas another study did not find this association (Muñoz et al., 2011). Similar results have been found for cyberbullying, with one study reporting a negative correlation (r = -.07; Topcu & Erdur-Baker, 2012) and another reporting no association (Ang & Goh, 2010). A third study comparing groups found that cyberbullies reported less cognitive empathy than non-cyberbullies (Schultze-Krumbholz & Scheithauer, 2009). The measures of all three studies on cyberbullying included bullying through email, phone, and Internet.

Victimization. The association between cognitive empathy and victimization has been reported to be either negative or nonsignificant. Four studies investigated the association between cognitive empathy and victimization in general. Two reported a negative association (r = -.16, r = -.20 for girls; Kokkinos & Kipritsi, 2012; Poteat & Espelage, 2005) and one reported the absence of an association (Belacchi & Farina, 2012). The fourth directly compared Grade 6 and Grade 8 children and reported no association between cognitive empathy and victimization in both groups (Ciucci & Baroncelli, 2013). Concerning specific forms of victimization, negative associations have been found with indirect victimization (r = -.18; Kokkinos & Kipritsi, 2012), whereas no associations have been found with direct victimization (Kokkinos & Kipritsi, 2012). Regarding cybervictimization, it has been found

that cybervictims reported less cognitive empathy that non-cybervictims when victimized through phone, email, or Internet (Schultze-Krumbholz & Scheithauer, 2009). However, cognitive empathy did not predict overt victimization or relational victimization (Gleason, Jensen-Campbell, & Ickes, 2009).

Defending. All studies on the association between cognitive empathy and defending reported positive correlations (ranging from r = .14 to r = .52; Belacchi & Farina, 2012; Caravita et al., 2009; Espelage, Green, & Polanin, 2012; Gini, Albiero, Benelli, & Altoè, 2008; Pöyhönen, Juvonen, & Salmivalli, 2010), with the exception of one in which no association was found (Gini et al., 2007). However, although Caravita et al. (2009) found a positive correlation in the overall sample (r = .14), no association was found between cognitive empathy and defending in children (8-10 years) and young adolescents (11-14 years) separately; nor did cognitive empathy predict defending in either children or young adolescents. The inability of cognitive empathy to predict defending was replicated in another study after controlling for gender and grade (Pöyhönen et al., 2010). In contrast, one study found that cognitive empathy positively predicted the willingness to intervene (β = .33), but only for boys and not for girls (Espelage et al., 2012).

Bystanding. The results concerning the association between cognitive empathy and bystanding are contradictory. In one study cognitive empathy and bystanding were positively associated after controlling for gender differences (r = .14; Gini et al., 2008). In another study they were negatively associated and cognitive empathy negatively predicted bystanding (r = -.23 and -.44; Belacchi & Farina, 2012).

Comparisons of types of involvement. A few studies compared cognitive empathy levels between different involvement in bullying types. Concerning bullying in general, one study found no differences between bullies, bully/victims and noninvolved peers but victims showed more cognitive empathy than noninvolved peers (Williford, Boulton, & Jenson, 2014), whereas another study found no differences between any of the groups (Espelage et al., 2004). In line with the latter finding, no differences were found between cyberbullies, cybervictims, cyberbully/victims, and noninvolved peers (Renati, Berrone, & Zanetti, 2012). Another study distinguished cyberbullying and cybervictimization in adolescents from Grades 7-9 and Grades 10-12 separately (Almeida, Correia, Marinho, & Garcia, 2012). In the younger group, cybervictims scored higher on cognitive empathy than cyberbully/victims and noninvolved adolescents. In the older group, cybervictims scored higher on cognitive empathy than cyberbully/victims, but did not differ from noninvolved adolescents. Cyberbullies did not differ from the other roles in both the younger and older group. The differences only held for cyberbullying and cybervictimization through mobile phones and not through the Internet. For the major part, these findings are in line with the findings of another study on cyberbullying including impersonation, denigration, outing/

trickery, exclusion, harassment, and stalking through phones and Internet combined (Pettalia, Levin, & Dickinson, 2013). It was found that cybervictims and cyberbullly/victims showed more cognitive empathy than children who were not involved in cyberbullying, whereas cyberbullies did not differ from cybervictims and cyberbully/victims.

Summary. In summary, whereas some studies indicated a negative association between cognitive empathy and bullying, other studies indicated no association or even a positive one. More agreement was observed among studies that look at specific forms of bullying: Cognitive empathy is negatively associated with direct and nonphysical bullying, but is not associated with physical and verbal bullying. The findings for indirect and cyberbullying are inconsistent. Cognitive empathy and victimization seem to be negatively associated, with studies indicating a negative association and studies indicating no association. In contrast, cognitive empathy is positively associated with defending. The two studies on the association between cognitive empathy and bystanding provided contradictory results, with one indicating a positive association and one indicating a negative association. Overall, (cyber)bullies, (cyber)victims, (cyber)bully/victims, and noninvolved peers did not differ in cognitive empathy, although one study indicated that cybervictims scored higher on cognitive empathy than cyberbully/victims (as well as noninvolved for the older group).

Affective Empathy

All but two of the 40 target studies investigated the association between affective empathy and involvement in bullying (see Table 2.3).

Bullying. The majority of the studies reported a negative association between affective empathy and bullying (ranging from r = -.15 to r = -.62; Belacchi & Farina, 2012; Chaux, Molano, & Podlesky, 2009; Ciucci & Baroncelli, 2013; Correia & Dalbert, 2008; Endresen & Olweus, 2001; Poteat et al., 2013; Raskauskas, Gregory, Harvey, Rifshana, & Evans, 2010; Stavrinides et al., 2010; Sticca, Ruggieri, Alsaker, & Perren, 2013). One study found the association only for boys (r = -.28) but not for girls (Gini et al., 2007). In addition, multiple studies found that affective empathy negatively predicts bullying (ranging from β = -.14 to β = -.44; Belacchi & Farina, 2012; Raskauskas et al., 2010; Stavrinides et al., 2010), although in one study this was only found for Grade 6 children (β = -.18) and not Grade 8 children (Ciucci & Baroncelli, 2013). Furthermore, bullying was found to predict affective empathy (β = -.39; Stavrinides et al., 2010). Taking the frequency of bullying into account, girl bullies – not boy bullies – reported less affective empathy than nonbullies (d = -0.32), frequent bullies reported less affective empathy than occasional bullies (d = -0.34 for boys and d = -0.71 for girls) and nonbullies (d = -0.35 for boys and d = -0.85 for girls), who did not differ from each other (Jolliffe & Farrington, 2006b, 2011).

Table 2.3 *Affective Empathy Studies*

Study	Sample	Affective Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Almeida, Correia, Marinho, & Garcia (2012)*	*N* = 1751 (52% ♀), 11-20 years, Grades 7-12	BES (affective scale) [Grade 7-9] IRI (EC) [Grade 10-12]	/	/	Grade 7-9: CV > CB; CV & CB = NI & CB/V Grade 10-12: CV > CB/V; CV & CB/V = NI & CB (all through phones only)
Ang & Goh (2010)*	*N* = 396 (55% ♀), 12-18 years	BES (affective scale)	/	Cyberbullying: -	/
Barchia & Bussey (2011)	*N* = 1280 (54% ♀), 12-15 years, Grades 7-12	IECA (9 items)	Defending: + (T1 & T2)	Defending: 0♂,+♀	/
Barhight, Hubbard, & Hyder (2013)	*N* = 771 (54% ♀), 9-12 years, Grades 4-5	BES (affective scale)	Victimization: 0 Defending: 0	/	/
Belacchi & Farina (2012)*	*N* = 188 (46% ♀), 3-6 years	IRI (EC)	Bullying: - Victimization: 0 Defending: + Bystanding: -	Bullying: - Victimization: 0 Defending: + Bystanding: -	/
Bellmore, Ma, You, & Hughes (2012)	*N* = 470 (52% ♀), Grades 6	IRI (modified EC)	Defending: +	/	/
Cappadocia, Pepler, Cummings, & Graig (2012)	*N* = 108 (41% ♀), 8-16 years	ERQ	/	Defending: +♂,0♀	/
Caravita, Di Blasio, & Salmivalli (2009)*	*N* = 461 (49% ♀), 8-10 & 11-14 years, Grades 3-4 & 6-7	HIFDS (affective scale)	Bullying: 0 Childhood: 0; Adolescent: -♂,0♀ Defending: + Childhood: 0♂,+♀; Adolescent: +♂,0♀	Bullying: Childhood: 0; Adolescent: -♂,0♀ Defending: Childhood: 0; Adolescent:+♂,0♀	/
Caravita, Di Blasio, & Salmivalli (2010)	*N* = 211 (54% ♀), 9-11 years, Grades 4-5	HIFDS (affective scale)	Bullying: 0 Victimization: 0♂,+♀ Defending: +	Bullying: 0 Victimization: 0 Defending: +♂,0♀	/

Table 2.3 *Affective Empathy Studies (Continued)*

Study	Sample	Affective Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Chaux, Molano, & Podlesky (2009)	*N* = 53,316 (54% ♀), 11 & 15 years, Grades 5 & 9	Chaux measure	Grade 5 Bullying: - Grade 9 Bullying: -	Grade 5 Bullying: - Grade 9 Bullying: -	/
Ciucci & Baroncelli (2013)*	*N* = 529 (53% ♀), 10-15 years, Grades 6 & 8	HIFDS (affective scale)	Grade 6 Bullying = - Grade 8 Bullying = - Grade 6 Victimization = 0 Grade 8 Victimization = 0	Grade 6 Bullying = - Grade 8 Bullying = 0	/
Coleman & Byrd (2003)	*N* = 52 (58% ♀), 12-14 years, Grades 7-8	QMEE	Victimization: 0 (self & teacher)	/	/
Correia & Dalbert (2008)	*N* = 187 (48% ♀), 12-18 years, Grades 7-9	IECA	Bullying: - Victimization: 0 Defending: +	Bullying: - Defending: +	/
Endresen & Olweus (2001)	*N* = 2286 (48% ♀), 13-16 years, Grades 6-9	ERQ	Bullying: - Boy Target: - Girl Target: 0♂,-♀	/	/
Espelage, Green, & Polanin (2012)*	*N* = 346 (51% ♀), 6-7 years	IRI (EC)	Defending: +	Defending: 0	/
Espelage, Mebane, & Adams (2004)*	*N* = 58 (43% ♀), Grades 6-8	IRI (EC)	Nonphysical Bullying: -♂,0♀	/	B = V = BV = N
Gano-Overway (2013)*	*N* = 528 (54% ♀), 10-15 years, Grades 6-8	BES (affective scale)	Bullying: 0	/	/
Gini, Albiero, Benelli, & Altoè (2007)*	*N* = 318 (45% ♀), 12-14 years, Grades 7-8	IRI (EC)	Bullying: -♂,0♀ Defending: +	/	/
Gini, Albiero, Benelli, & Altoè (2008)*	*N* = 294 (46% ♀), 12-14 years	IRI (EC)	Defending: + Bystanding: 0	/	/

Table 2.3 *Affective Empathy Studies (Continued)*

Study	Sample	Affective Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Gleason, Jensen-Campbell, & Ickes (2009)*	*N* = 116 (50% ♀), 10-14 years, Grades 5-8	IRI (EC)	/	Relational Victimization: 0 Overt Victimization: 0	/
Jollife & Farrington (2006b)*	*N* = 720 (48% ♀), 13-17 years, Grade 10	BES (affective scale)	/	/	B < NB (♂♀) B < NB ♀ B = NB ♂ Frequent B < Occasional B Physical B = NB; Verbal B = NB; Indirect B = NB ♂, Indirect B < NB ♀
Jollife & Farrington (2011)*	*N* = 720 (48% ♀), 13-17 years, Grade 10	BES (affective scale)	/	/	B = NB ♂, B < NB ♀ Frequent B < NB Physical = Verbal = Indirect
Kokkinos & Kipritsi (2012)*	*N* = 206 (46 % ♀), 10-13 years, Grade 6	F&T (F)	Bullying: 0 Direct: 0; Indirect: 0 Victimization: - Direct: +; Indirect: 0	Bullying: 0 Victimization: 0	/
Malti, Perren, & Buchmann (2010)	*N* = 175 (49% ♀), 6 years	Zhou measure [self, mother, & teacher]	Victimization: - (T2 & Tch ange)	/	/
Muñoz, Qualter, & Padgett (2011)*	*N* = 201 (50% ♀), 11-12 years	BES (affective scale)	Direct Bullying: - Indirect Bullying: 0	Direct Bullying: 0 Indirect Bullying: 0	/
Nickerson, Mele, & Princiotta (2008)	*N* = 105 (64% ♀), 11-14 years, Grades 6-8	ERQ	/	Defending: +	D > By
Park (2013)	*N* = 1516 (52% ♀), Grades 5-9	IECA	/	/	B = V = B/V; D = By = B
Pettalia, Levin, & Dickinson (2013)*	*N* = 260 (59% ♀), 12-15 years, Grades 7-8	BES (affective scale)	/	/	CB/V > CB & NI; CB/V = CV

Table 2.3 *Affective Empathy Studies (Continued)*

Study	Sample	Affective Empathy Measure(s)	Correlation	Regression (Empathy Predicting Bullying)	Groups Comparison
Poteat, DiGiovanni, & Scheer (2013)*	*N* = 618 (55% ♀), Grades 9-12	IRI (EC)	Bullying: -	/	/
Poteat & Espelage (2005)*	*N* = 191 (52% ♀), Grade 8	IRI (EC)	Nonphysical Bullying: - Victimization: 0	/	/
Pöyhönen, Juvonen, & Salmivalli (2010)*	*N* = 489 (53% ♀), 10 & 14 years, Grades 4 & 8	HIFDS (affective scale)	Defending: +	Defending: 0	/
Raskauskas, Gregory, Harvey, Rifshana, & Evans (2010)	*N* = 1168 (52% ♀), 8-13 years, Grades 4-8	IECA (6 items)	Bullying: - Victimization: 0 Defending: +	Bullying: - Victimization: 0 Defending: +	B & B/V < V & NI
Renati, Berrone, & Zanetti (2012)*	*N* = 819 (67% ♀), mean 16 years	BES (affective scale)	/	/	CB < CV & NI CB/V = CB & CV & NI
Stavrinides, Georgiou, & Theofanous (2010)*	*N* = 205 (53% ♀), 11 years, Grade 6	BES (affective scale)	Bullying: -	Bullying: - (both directions)	/
Sticca, Ruggieri, Alsaker, & Perren (2013)	*N* = 835 (49% ♀), 13 years, Grade 7	Zhou measure	Bullying (T1 & T2): - Cyberbullying (T1 & T2): - Victimization (T1): 0 Cybervictimization (T1): 0	/	/
Topcu & Erdur-Baker (2012)*	*N* = 795 (57% ♀), 13-18 years	BES (affective scale)	Relational Bullying: - Cyberbullying: -	/	/
Warden & Mackinnon (2003)	*N* = 58 (43% ♀), 9-10 years, Grades 6-9	IECA	/	/	V = B & D B < D (equal after controlling for gender)
Woods, Wolke, Nowicki, & Hall (2009)	*N* = 200 (54% ♀), 9-11 years	IECA	/	/	Relational V = Physical V = Relational/Physical V = NV

Note. * = studies assessing cognitive and affective empathy; + = positive association; - = negative association; 0 = no association; ♂ = boys only; ♀ = girls only, (♂♀) = boys and girls together; B = bullies; V = victims; B/V = bully/victims; NI = noninvolved; NB = nonbullies; D = defenders; By = bystanders; C = cyber.

However, there were also studies in which no association was found between affective empathy and bullying (Barhight, Hubbard, & Hyde, 2013; Caravita, Di Blasio, & Salmivalli, 2010; Gano-Overway, 2013; Kokkinos & Kipritsi, 2012), or in which affective empathy did not predict bullying (Caravita et al., 2010). Similarly, no association between affective empathy and bullying was found for children (8-10 years) and young adolescent (11-14 years) separately or taken together, with the exception being the adolescents boys, for whom affective empathy was negatively associated (r = -.16) with bullying and affective empathy negatively predicted (β = -.17) bullying (Caravita et al., 2009).

Research on the association between affective empathy and bullying has also been conducted on specific forms of bullying. No differences in affective empathy were found when comparing physical bullies and verbal bullies to nonbullies (Jolliffe & Farrington, 2006b, 2011), however girl indirect bullies – not boy indirect bullies – showed less affective empathy than nonbullies (d = -0.38; Jolliffe & Farrington, 2006b). In line with this is the finding that relational bullying is negatively associated with affective empathy (r = -.14; Topcu & Erdur-Baker, 2012). Concerning direct bullying, one study found a negative association (r = -.18; Muñoz et al., 2011), whereas another did not find this (Kokkinos & Kipritsi, 2012). Concerning indirect bullying, no associations have been found (Kokkinos & Kipritsi, 2012; Muñoz et al., 2011). Nonphysical bullying has been reported to be negatively associated with affective empathy (r = -.59 for boys and r = -.28 for girls; Poteat & Espelage, 2005), with another study replicating this finding for boys only (r = -.31; Espelage et al., 2004). Furthermore, studies have found a negative association between affective empathy and cyberbullying (r = -.12, r = -.10; Sticca et al., 2013; Topcu & Erdur-Baker, 2012; respectively), and that affective empathy negatively predicted cyberbullying (r = -.19; Ang & Goh, 2010).

Whereas all the studies focused on affective empathy in general, in one study the target of empathy was explicitly identified as either a boy or a girl (Endresen & Olweus, 2001). When the target was a boy, negative associations were found between affective empathy and bullying for both girls (only Grades 8-9, r = -.15) and boys (r = -.17 for Grades 6-7, r = -.21 for Grades 8-9). When the empathy target was a girl, negative associations were found for girls (r = -.15 for Grades 6-7, r = -.19 for Grades 8-9), but not for boys.

Victimization. In most studies, there was no association between affective empathy and victimization (Barhight et al., 2013; Belacchi & Farina, 2012; Ciucci & Baroncelli, 2013; Coleman & Byrd, 2003; Correia & Dalbert, 2008; Poteat & Espelage, 2005; Raskauskas et al., 2010; Sticca et al., 2013; Vezzali, Capozza, Stathi, & Giovannini, 2012), nor did affective empathy predict victimization (Belacchi & Farina, 2012; Caravita et al., 2010; Raskauskas et al., 2010). In line with this, no correlation was found between affective empathy at Time 1 and victimization at Time 1 and Time 2 (a year apart), whereas a negative correlation was found between affective empathy at Time 2 and victimization at Time 2 (r = -.20; Malti,

Perren, & Buchmann, 2010). However, one study found a negative concurrent association between affective empathy and victimization (r = -.15; Kokkinos & Kipritsi, 2012) and, in contrast, one study found a positive association for girls (r = .17) – not for boys (Caravita et al., 2010).

Although affective empathy was positively associated with direct victimization (r = .16; Kokkinos & Kipritsi, 2012), it was not associated with indirect victimization (Kokkinos & Kipritsi, 2012), or cybervictimization (Sticca et al., 2013); nor did it predict overt or relational victimization (Gleason et al., 2009). Furthermore, no difference was found between physical, relational and physical/relational bullies on affective empathy after controlling for gender (Woods, Wolke, Nowicki, & Hall, 2009).

Defending. With the exception of one study in which no association was found (Vezzali et al., 2012), all studies on defending and prosocial involvement in bullying reported a positive association with affective empathy (ranging from r = .12 to r = .61; Barchia & Bussey, 2011; Belacchi & Farina, 2012; Bellmore, Ma, You, & Hughes, 2012; Caravita et al., 2009, 2010; Correia & Dalbert, 2008; Espelage et al., 2012; Gini et al., 2007; Pöyhönen et al., 2010; Raskauskas et al., 2010). One study indicated that this association was only significant for than girls in childhood (r = .23) and for boys in adolescence (r = .37; Caravita et al., 2009). Three studies reported that affective empathy positively predicted defending (ranging from β = .15 to β = .85; Barchia & Bussey, 2011; Belacchi & Farina, 2012; Raskauskas et al., 2010). However, two studies found this association only for (adolescent) boys (r = .37, β = 2.82; Cappadocia, Pepler, Cummings, & Craig, 2012; Caravita et al., 2009; respectively), and one study found this association to be stronger for girls than boys after controlling for grade, victimization, and aggression (Barchia & Bussey, 2011).

Bystanding. Of the two studies on the association between affective empathy and bystanding, one found that they were negatively correlated (r = -.34 and r = -.50) and that affective empathy negatively predicted (β = -.34 and β = -.34) being an outsider (Belacchi & Farina, 2012), and one found no association after controlling for gender differences (Gini et al., 2008).

Comparisons of types of involvement. Three studies found no differences in affective empathy between different groups such as bullies, victims, bully/victims, prosocial peers, and noninvolved peers (Espelage et al., 2004; Park, 2013; Warden & Mackinnon, 2003). In contrast, one study found that bullies reported less affective empathy than victims, but did not differ from bully/victims and noninvolved peers; bully/victims reported less affective empathy than victims and noninvolved peers (Raskauskas et al., 2010). In another study, cyberbullies showed less affective empathy than cybervictims and noninvolved peers, whereas cyberbully/victims did not differ from the other three groups (Renati et al., 2012). Comparing two age groups, in the younger group (Grades 7-9) cybervictims scored higher

on affective empathy than cyberbullies, but both did not differ from cyberbully/victims and noninvolved peers, whereas in the older group (Grades 10-12) cybervictims scored higher on affective empathy than cyberbully/victims, but did not differ from cyberbullies and noninvolved peers (Almeida et al., 2012). The differences only held for cyberbullying and cybervictimization through mobile phones and not through the Internet. In a recent study (Pettalia et al., 2013), cyberbully/victims showed more affective empathy than cyberbullies and children who were not involved in cyberbullying, whereas cyberbully/victims did not differ from cybervictims.

One study compared defenders and bystanders (Nickerson, Mele, & Princiotta, 2008). Affective empathy predicted children's role as defenders or outsiders: Children who reported more affective empathy were more likely to intervene in a bullying event. However, in another study no differences in affective empathy were found between defenders, passive bystanders, and assistants of the bully (Park, 2013).

One study investigated the association between affective empathy and involvement in bullying at the school level, with involvement in bullying being a combination of bullying, victimization, and witnessing bullying and victimization (Chaux et al., 2009). Affective empathy was negatively associated with involvement in bullying at the school level. Also, affective empathy negatively predicted involvement in bullying in Grade 5 as well as in Grade 9.

Summary. In summary, most studies reported a negative association between affective empathy and bullying, although a few studies found no association. The same was true for the specific forms of bullying: Negative associations for nonphysical bullying, direct bullying, and cyberbullying, but no association for indirect bullying. There is high concordance on the absence of an association between affective empathy and victimization in general as well as specific forms of victimization. An exception was the positive association with direct victimization. Defending and other prosocial forms of involvement in bullying were positively associated with affective empathy, which appears to be stronger for girls. The two studies on the association between cognitive empathy and being an outsider provided contradictory results: one indicated no association and one indicated a negative association. Concerning the comparison of roles, there are studies in which no difference in affective empathy was found between the involvement in bullying roles. However, in other studies (cyber)bullies and (cyber)bully/victims scored lower on affective empathy than victims, but not necessarily different from noninvolved peers.

Cognitive and Affective Empathy

Of the 40 target studies, 22 studies investigated both cognitive and affective empathy. This section briefly highlights the similarities and differences in cognitive and affective empathy within the studies that investigated both empathy components. These findings are discussed separately for bullying, victimization, defending, and bystanding.

Bullying. Twelve studies have investigated the association of cognitive empathy and affective empathy with bullying, of which seven found a negative association for both empathy components (Belacchi & Farina, 2012; Espelage et al., 2004; Gini et al., 2007; Muñoz et al., 2011; Poteat et al., 2013; Poteat & Espelage, 2005; Topcu & Erdur-Baker, 2012), of which one found this specifically for direct bullying, but not indirect bullying (Muñoz et al., 2011). In addition, another study reported the same pattern for eighth graders, but reported a negative association with affective empathy for sixth graders, while no association with cognitive empathy was found (Ciucci & Baroncelli, 2013). This is in line with a study reporting affective empathy – but not cognitive empathy - negatively predicting bullying (Ang & Goh, 2010) as well as with a short-term longitudinal study reporting cognitive empathy being negatively associated with bullying, negatively predicting bullying, and being negatively predicted by bullying, whereas affective empathy was not associated with bullying, did not predict bullying, and was not predicted by bullying (Stavrinides et al., 2010). Also, the opposite pattern has been reported with affective empathy being negatively associated with bullying and negatively predicting bullying, whereas cognitive empathy is not associated with bullying nor does it predict bullying (Kokkinos & Kipritsi, 2012). Last, there is a study that reports the absence of any association with either cognitive or affective empathy (Caravita et al., 2009).

Victimization. Four studies have investigated the association of both cognitive and affective empathy with victimization. Three of them report the absence of any association regarding both empathy components (Belacchi & Farina, 2012; Ciucci & Baroncelli, 2013; Gleason et al., 2009). Similarly, two studies report that neither of the two empathy components predict victimization (Belacchi & Farina, 2012; Poteat & Espelage, 2005). One study reports negative associations regarding both cognitive and affective empathy, but in addition reports cognitive empathy to be unassociated with direct victimization and negatively associated with indirect victimization, while reporting affective empathy to be positively associated with direct victimization and unassociated with indirect victimization (Poteat & Espelage, 2005).

Defending. Six studies have investigated cognitive and affective empathy with defending, with five of them reporting positive associations for both empathy components (Belacchi & Farina, 2012; Caravita et al., 2009; Espelage et al., 2012; Gini et al., 2008; Pöyhönen et al., 2010). However, there is less consistency regarding empathy being able to predict defending, with a study reporting affective – but not cognitive – empathy to predict defending (Belacchi & Farina, 2012), a study reporting neither empathy components being able to predict defending (Pöyhönen et al., 2010), and a study reporting defending to be predicted only by cognitive empathy for boys (Espelage et al., 2012). Last, there is one study reporting affective – but not cognitive – empathy to predict defending (Gini et al., 2007).

Bystanding. There are only two studies investigating both cognitive and affective empathy with regards to bystanding. One of them reports a negative association with both empathy components (Belacchi & Farina, 2012), whereas the other reports a positive association with cognitive empathy and the absence of an association with affective empathy (Gini et al., 2008).

DISCUSSION

The prevalence and detrimental effects of bullying and victimization have been well documented. Although it is well known that these experiences have negative effects on physical, mental, and social well-being (e.g., Ttofi & Farrington, 2008), efforts to prevent or minimize these experiences have not been as effective as they aim to be. A premise of the present study is that practice in this area has been largely disconnected from the current theory and research on the origins and processes related to bullying and victimization. This disconnect appears to be especially strong with respect to the construct of empathy. Whereas the empathy training element in bullying prevention and intervention programs generally focuses on developing or enhancing a global sense of empathy, research has revealed multiple dimensions of empathy (i.e., cognitive and affective; Davis, 1983) with each a different association with bullying. The present study presents a systematic review of previous research on the association between empathy and involvement in bullying. The present findings show clearly that there are general and specific patterns of association between types of involvement in bullying and levels of empathy. These patterns indicate that bullying, victimization, defending, and bystanding are uniquely related to cognitive and affective empathy.

Bullying is generally negatively associated with affective empathy. The association with cognitive empathy tend to go in the same direction, with half of the studies reporting a negative association and the other half reporting no association. This suggest that children involved in bullying are not necessarily incapable of knowing what others feel, although they do appear to have an impaired ability to feel what others feel. That is, whether or not bullies *understand* what others feel, they do not *experience* what others feel. This is in line with the theorizing of other researchers (e.g., Bryant, 1982; Cohen & Strayer, 1996; Lovett & Sheffield, 2007; Warden & Mackinnon, 2003), who have stated that experiencing the feelings of others – not merely understanding their feelings – is what influences children's tendency to refrain from bullying. Taking this argument even further, as argued by Jolliffe and Farrington (2006b), "sufficient cognitive empathy could facilitate the recruitment of others to bully, and this understanding of another's emotions would help devise particularly effective methods of bullying" (p. 548), suggesting that some bullies may even have enhanced cognitive empathy skills. This idea is supported by the results of Sutton, Smith, and Swettenham (1999b), who found that bullies are better able to infer other's emotions

than victims as well as assistants and reinforcers (for a discussion on the topic, see Crick & Dodge, 1999; Sutton, Smith, & Swettenham, 1999a, 1999c).

Victimization is generally not associated with affective empathy, but appears negatively associated with cognitive empathy. Thus, victimized children are just as capable to feel what others feel as non-victimized children, but they do seem to have more difficulty with understanding others' feeling. That is, victims *experience* what others feel, but do not *understand* what others feel – the opposite pattern of bullies. Previous research has also found that victimized children have problems understanding other children's minds (Gini, 2006). Malti, Perren, and Buchmann (2010) argued that this deficiency in empathy makes children vulnerable for victimization as empathy normally facilitates the quality of interpersonal relationships and buffers victimization. In turn, they argued that victimized children have fewer opportunities to understand what others feel as they have fewer friends.

Defending is consistently positively associated with cognitive and affective empathy, meaning that children who act prosocially in bullying incidents show enhanced levels of both components of empathy. That is, children who defend, intervene, help, mediate, or console in bullying incidents understand and experience others' feelings better than those who do not engage in these prosocial behaviors. This is in line with the general finding that elevated levels of empathy are associated with prosocial behavior (e.g., Eisenberg & Miller, 1987).

The findings for bystanding are based on only two studies with contradictory results. Although both studies used the same empathy and bullying measures, they used different informants (self and peers vs. teachers). The contradictory findings may be caused by different perceptions of empathy in teachers compared to children themselves. However, it is also possible that teachers and peers have different perceptions of who is a bystander. This is in line with findings that peer and teacher reports of victimization are moderately correlated (Cornell & Brockenbrough, 2004). It may be difficult to see who is involved in bullying and who is not. Perhaps children judged to be bystanders by teachers are actually reinforcers or assistants of the bully (they fit the empathy profile of bullying), whereas children judged to be bystanders by peers are the true bystanders. This assumption is supported by the finding that self-reported bullying and victimization are correlated more strongly with peer reports than with teacher reports (Cornell & Brockenbrough, 2004).

Regarding the comparisons of different involvement in bullying types, the comparison of bully/victims to bullies and victims is of particular interest as they are considered to be distinct groups differently associated with negative outcomes of involvement in bullying (e.g., Schwartz et al., 2001). Overall, the findings of the current study do not reveal distinct empathy patterns of bully/victims with either bullies or victims. Therefore, the enhanced risk for social rejection and other negative of bully/victims cannot be attributed to a difference in the ability to understand or experience others' emotions.

Although gender differences have been found consistently in empathy and involvement in bullying separately, we observed only small gender differences in the association between empathy and involvement in bullying. Overall, associations between components of empathy and types of involvement in bullying were in similar directions for boys and girls. However, they were sometimes stronger for boys than for girls. A similar trend exists for the association between empathy and aggression (Miller & Eisenberg, 1988). In one of the studies we reviewed (Topcu & Erdur-Baker, 2012), cognitive and affective empathy taken together mediated the link between gender and bullying, which was interpreted as indicating that the risk factor for engaging in bullying is not gender, but rather the levels of empathy associated with gender.

The few studies with age comparisons found no or minor age differences in the association between empathy and involvement in bullying (Caravita et al., 2009; Chaux et al., 2009; Pöyhönen et al., 2010). The other studies included overlapping age ranges (for the one exception, see Belacchi & Farina, 2012), making it impossible to inspect them for age differences. However, there is information available on the development of the association between empathy and involvement in bullying from a short-term longitudinal study, in which affective empathy – not cognitive empathy – predicted bullying and bullying predicted affective empathy – not cognitive empathy (Stavrinides et al., 2010). This indicates that "empathy serves as a barrier for future bullying, while prior involvement in bullying operates against the development of empathy" (Stavrinides et al., 2010, p. 799).

Some of the scales that were used in the reviewed studies have been criticized as measures of affective or cognitive empathy. According to Jolliffe and Farrington (2006a) – based on inspection of the individual items – the QMEE (Mehrabian & Epstein, 1972) and the EC scale of the IRI (Davis, 1980, 1983) appear to equate sympathy with empathy, whereas the PT scale of the IRI "measures the broad ability to take another's perspective, rather than the more specific ability to understand the emotions of another" (p. 592). This has implications for our results, as it is striking that all studies reporting a negative association between cognitive empathy and bullying used the PT scale or the Thinking scale from the F&T (Garton & Gringart, 2005) – a measure based on the IRI. Studies using other empathy measures, such as the BES (Jolliffe & Farrington, 2006a) or HIFDS (Bonino et al., 1998), reported no association between cognitive empathy and bullying. One may argue that the negative association in the studies using the PT scale actually represents a negative association between ToM and bullying, rather than empathy and bullying.

We also have some concerns regarding the involvement in bullying measures that were used. First, different studies used different measures, or the same measures under different circumstances, making results difficult to compare. For example, there is variation across studies in the reference period (e.g., month vs. academic year), number of nominations that can be given vary (e.g., nine vs. unlimited), the nature of the measurement (e.g., mere

occurrence vs. frequency). Second, not all studies mention explicitly whether participants were given a definition of bullying. This has been proven to have on effect on the reported occurrence of involvement in bullying (Kert, Codding, Tryon, & Shiyko, 2010). Third, even if a definition was provided, not all defining elements of bullying may have been taken into consideration. This is particularly important for cyberbullying: Although cyberbullying is generally seen as a form of traditional bullying, not all definitions of cyberbullying incorporate each element of the traditional bullying definition. Repetition and power imbalance are not always explicitly mentioned or are even disregarded. In those cases, the terms cyberaggression or online aggression may be more suitable (for a review, see Dooley, Pyżalski, & Cross, 2009). This variation in the definition of cyberbullying, which influences its measurement, may have contributed to the contradicting findings for cognitive and affective empathy. Therefore, we recommend to always provide an inclusive definition of bullying and to check whether described instances of bullying meet these criteria to prevent measuring general aggression.

In nearly all studies, empathy was measured with self-reports, whereas involvement in bullying was primarily measured with self-reports or peer-reports. In general, the correlations between self- and peer-reports are weak to moderate, indicating different perspectives on bullying between informants. Therefore, the information source must be considered, which makes it difficult to compare results from studies with different informants. We therefore join Juvonen, Nishina, and Graham (2001) and Salmivalli and Peets (2009) in their advice to use multiple informants within studies, rather than between studies.

Overall, empathy is measured towards others in general, including friends, peers, strangers, adults, etc. As it is probable that one's empathy is based on the level of acquaintance – that is, one's empathy towards a friend is probably higher than one's empathy towards a stranger – this causes variability in the data. The finding by Olweus and Endresen (Endresen & Olweus, 2001; Olweus & Endresen, 1998) that empathy varies based on the gender of the target supports this assumption. Therefore, future research should focus on the identity of empathy targets and explore how different identities influence the cognitive and affective empathy of children involved in bullying, victimization, defending, and bystanding.

The diversity of the reviewed studies provides a rich source of information on the association between empathy and involvement in bullying. However, the same diversity precluded a formal meta-analysis without losing sight of the forms of bullying or other specifications that structured our review. In order to draw meaningful conclusions, a meta-analysis on the association between empathy and involvement in bullying would have required combinations of multiple studies on different facets, losing the vital information. Also, the comparisons of types of involvement could not have been included in the meta-analysis as most studies compare different types with one another. Even though our review does not integrate effect sizes into final numbers for the strengths of the empathy and

involvement in bullying association, it is a systematic overview of the literature. It shows that bullying, victimization, defending, and bystanding are differently related to affective and cognitive empathy, in which their associations with cognitive empathy sometimes differs from their associations with affective empathy.

As a take home message, we suggest that interventions should focus on both components of empathy and tailor empathy training to each involvement in bullying type. Children involved in bullying should be trained to experience what others feel, victimized children should be focused on understanding what others feel, and bystanders should be focused on both empathy components. Enhancing empathic skills through training may not only result in less bullying but also in more defending as defending is associated with high levels of both cognitive and affective empathy. In addition, children involved in defending could be of assistance in these trainings by offering a peer perspective on empathy in involvement in bullying. This may strengthen the children's sense of bullying being a group process and, in turn, promote active group participation in bullying prevention and intervention programs.

CONCLUSION

The current study systematically reviewed the association between empathy and involvement in bullying. Distinct empathy profiles regarding bullying, victimization, defending, and bystanding were revealed, stressing the importance of distinguishing understanding others' emotions (i.e., cognitive empathy) from experiencing others' emotions (i.e., affective empathy). That is, bullying is negatively associated with cognitive and – in particular – affective empathy, whereas victimization is negatively associated with cognitive empathy but not with affective empathy. Defending is consistently positively associated with both types of empathy, whereas the association with bystanding and empathy remains unclear due to opposite results. Although future research is warranted – especially regarding empathy and bystanding – the current study provides a foundation for the improvement of bullying prevention and intervention programs.

Chapter 3

Disentangling the Frequency and Severity of Bullying and Victimization in the Association with Empathy

van Noorden, T. H. J., Bukowski, W. M., Haselager, G. J. T., Lansu, T. A. M., & Cillessen, A. H. N. (2016). Disentangling the frequency and severity of bullying and victimization in the association with empathy. *Social Development*, 1, 176-192. doi: 10.1111/sode.12133

ABSTRACT

The present study disentangled the frequency and perceived severity of experienced bullying and victimization by investigating their associations with cognitive and affective empathy. Participants were 800 children (7–12 years old) from third- to fifth-grade classrooms who completed self-report measures of the frequency and perceived severity of their bullying and victimization and of cognitive and affective empathy. Results showed that the frequency and perceived severity of bullying were moderately correlated in the entire sample but unrelated within the subsample of bullies. Frequency and perceived severity of victimization were significantly and positively correlated in the entire sample (moderate effect) and the subsample of victims (small effect). Frequent – but not severe – bullies reported less cognitive empathy than nonbullies, whereas both frequent and severe victims reported more affective empathy than nonvictims. Within subsamples of bullies and victims, frequency of bullying was negatively associated with cognitive and affective empathy, and perceived severity of bullying was positively associated with affective empathy. Frequency of victimization was not associated with cognitive and affective empathy, but perceived severity of victimization was positively associated with both forms of empathy.

Bullying prevention and intervention programs have often incorporated empathy training as an essential element (for an overview, see Farrington & Ttofi, 2009). The underlying assumption of such programs seems to be that bullies are deficient in empathy or even lack it completely. However, research on the association of bullying and victimization with empathy shows inconsistent findings (for a review, see van Noorden, Haselager, Cillessen, & Bukowski, 2015). This inconsistency may be partly due to the various ways in which bullying is measured. Bullying is typically defined as a subtype of aggressive behavior in which an individual or group intentionally causes harm to a relatively powerless person repeatedly and over time (Olweus, 2010; Salmivalli, 2010; Salmivalli & Peets, 2009); victimization can be defined as the experience of being the target of bullying. The 'repeatedly and over time' element of this definition has resulted in the use of frequency as a key feature of many measures of bullying. By relying on the measures that invoke the element of frequency to identify bullying and victimization one implicitly assumes that frequency is an indication of perceived severity. Recent research, however, shows that more frequent victimization is not necessarily perceived as more severe (Chen, Cheng, Wang, & Hsueh, 2015). In the present study the effects of frequency and perceived severity are contrasted with regard to cognitive and affective empathy to assess their relative importance.

Antisocial Behavior and Empathy

Empathy can be defined as a *cognitive* trait referring to a person's ability to understand another person's emotions (e.g., Hogan, 1969) or as an *affective* trait referring to a person's capacity to experience another person's emotions (e.g., Mehrabian & Epstein, 1972). Today, empathy is typically conceptualized as a multidimensional construct with the cognitive and affective components combined (Cohen & Strayer, 1996; Davis, 1983). It has been well established that elevated levels of empathy are associated with prosocial behavior (e.g., Eisenberg & Miller, 1987). Findings on the association between empathy and antisocial behavior have been less conclusive. Miller and Eisenberg (1988) found in their review that affective empathy was negatively associated with antisocial behavior, but only when empathy was measured with questionnaires. In another review, which focused specifically on studies that used questionnaires, Jolliffe and Farrington (2004) found a stronger negative association of offending with cognitive than with affective empathy. In a review on the association between aggressive or delinquent behavior and affective empathy in children and adolescents, Lovett and Sheffield (2007) found a negative association between affective empathy and aggression, especially when measured with questionnaires, but only in older children and adolescents and not in younger children.

Bullying is a specific form of childhood antisocial behavior that has received increased attention due to its high prevalence (e.g., Stassen Berger, 2007) and its detrimental effects on physical and mental health (e.g., Rigby, 2000; Ttofi & Farrington, 2008). Van Noorden

et al (2015) systematically reviewed the association between bullying involvement and empathy based on the findings of 40 studies using questionnaires. This review revealed mixed results regarding the association between bullying and cognitive empathy. Some studies reported a negative association (e.g., Belacchi & Farina, 2012; Poteat & Espelage, 2005) whereas others found no association (e.g., Caravita, Di Blasio, & Salmivalli, 2009; Stavrinides, Georgiou, & Theofanous, 2010). In contrast, there was high consensus among studies on a negative association between bullying and affective empathy (e.g., Belacchi & Farina, 2012; Stavrinides et al., 2010). Together these findings suggest that children involved in bullying are not necessarily incapable of understanding others' feelings, but do appear to experience others' feelings to a smaller extent.

Van Noorden and colleagues (2015) also reviewed the association of empathy with being the target – rather than the perpetrator – of bullying. Similar to bullying, mixed results were found for the association of victimization with cognitive empathy, with studies reporting a negative association (e.g., Kokkinos & Kipritsi, 2012; Poteat & Espelage, 2005) or no association (e.g., Belacchi & Farina, 2012; Ciucci & Baroncelli, 2014). Regarding the association of victimization with affective empathy, the majority of studies indicated no association (e.g., Belacchi & Farina, 2012; Poteat & Espelage, 2005). These findings suggest that victimized children are just as capable as non-victimized children to experience what others feel, but have more difficulty with understanding others' feelings.

Frequency and Perceived Severity

The inconsistent findings on the associations of bullying and victimization with empathy partly may have been caused by the way bullying involvement has been operationalized. Although the conceptual definition of bullying is solid, operational definitions are heterogeneous. This discrepancy between conceptual and operational definitions is especially true for the 'repeatedly and over time' element. In most studies the frequency of incidents determines whether an aggressive situation is classified as bullying or victimization. To illustrate, some of the most common bullying and victimization questionnaires use temporal categories as response options. For example, the revised Olweus Bully/Victim Questionnaire (OBVQ; Olweus, 1996) has the response options: 'never', 'only once or twice', '2-3 times a month' (replacing the 'sometimes' category used in earlier versions of the scale), 'once per week', and 'several times per week'. In some studies, bullying or victimization has been identified when incidents occurred at least 2-3 times a month (e.g., Park, 2013; Williford, Boulton, & Jenson, 2014), whereas in other studies a threshold of incidents having occurred only once or twice has been used (e.g., Jolliffe & Farrington, 2006b, 2011; Sticca, Ruggieri, Alsaker, & Perren, 2013).

Research by Jolliffe and Farrington (2006b, 2011) shows that the frequency threshold that is used affects the association between bullying involvement and empathy. They

compared nonbullies, occasional bullies ('once or twice'), and frequent bullies ('sometimes' or more often) on cognitive and affective empathy. Overall, the results revealed that bullies in general (i.e., occasional and frequent bullies combined) did not differ from nonbullies on cognitive and affective empathy. However, frequent bullies reported less cognitive empathy (males only) as well as less affective empathy (males and females) than nonbullies. Furthermore, frequent bullies reported less affective – but not cognitive – empathy than occasional bullies. Combining these results, one could conclude that children who are involved in bullying have less empathy than children who are not involved in bullying, but only when they bully frequently.

The frequency of bullying and victimization is typically confused with its perceived severity. Perceived severity is likely a powerful index of the seriousness of bullying and victimization incidents. It can be defined as an individual's implicit perception of the impact or effect of an incident or series of incidents with respect to the degree of harm caused to oneself and others. Perceived severity is sensitive to interpretations and situational factors, such as the publicity and anonymity of the incidents (Sticca & Perren, 2013). Despite the distinct conceptualization of frequency from perceived severity, many studies have assumed the attributes to be interchangeable. There are studies in which bullying or victimization incidents that occur at least once a week have been explicitly referred to as more serious or severe than those that happen less often (e.g., Borg, 1999; Boulton & Underwood, 1992; Slee, 1994). Another study explicitly conflated frequency and perceived severity by defining bullying as "mildly severe" when incidents only occurred once, "moderately severe" when incidents occurred over time and resulted in reciprocated aggression, and "very severe" when incidents occurred over time and involved multiple bullies who were bigger or older and resulted in obvious distress (Raskauskas, 2005).

Although frequency may be an indicator of perceived severity in some circumstances, it is debatable whether being called a disrespectful name twice a week is experienced as twice as severe as being called a disrespectful name once a week. This claim that the frequency of bullying and victimization does not necessarily determine the perceived severity finds support in the literature that shows that the most frequent forms of bullying are not considered to be the most severe ones. Verbal bullying occurs more frequently than physical bullying (e.g., Scheithauer, Hayer, Petermann, & Jugert, 2006; Whitney & Smith, 1993), but is considered less severe by students (measured with hypothetical scenarios; Maunder, Harrop, & Tattersall, 2010).

Recently, Chen et al. (2015) investigated the correspondence between frequency and perceived severity of victimization directly. Instead of using hypothetical scenarios, they focused on participants' own actual victimization experiences. Overall, boys reported their victimization as more frequent, whereas girls reported their victimization as more severe. More importantly, a non-significant association was found between frequency and

perceived severity of victimization (r = -.11), supporting that they cannot be equated and should be investigated separately.

Present Study

The present study aimed to disentangle frequency and perceived severity of bullying and victimization by examining their associations with cognitive and affective empathy. The first research question that was addressed is whether children who are occasionally or frequently involved in bullying and victimization as well as children who are mildly or severely involved differ in cognitive and affective empathy from children who are not involved? We expected children who were frequently involved in bullying to report less cognitive and affective empathy than children who were not involved in bullying (based on Jolliffe & Farrington, 2011) and investigated whether the same was true for involvement in victimization (based on Ciucci & Baroncelli, 2014; Poteat & Espelage, 2005). Because the present study was the first to investigate cognitive and affective empathy among noninvolved children, mildly involved children, and severely involved children, we explored whether these groups differed from each other on bullying and victimization separately.

The second research question denoted whether frequency and perceived severity have unique associations with cognitive and affective empathy for children who are involved in bullying and victimization. To test these associations as well as the additive effect of perceived severity beyond the effect of the commonly used frequency, hierarchical regression analyses were conducted separately for bullying and victimization. Children who were not involved in bullying or victimization were not included in the analyses as they do not have scores on the frequency and severity of bullying or victimization, leaving us to focus solely on children who were involved in varying degrees of frequency and perceived severity. We expected a negative association of the frequency of bullying with affective – but not cognitive – empathy (based on Jolliffe & Farrington, 2006b). We explored the associations of victimization with cognitive and affective empathy (based on e.g., Ciucci & Baroncelli, 2014; Poteat & Espelage, 2005). Furthermore, we explored whether and how the perceived severity is associated with cognitive empathy and affective empathy beyond the association of the frequency with cognitive and affective empathy, separately for bullying and victimization.

In all analyses, gender was taken into account because of the different associations between the frequency of bullying and empathy found for boys and girls (Jolliffe & Farrington, 2006b, 2011) as well as the differences between boys and girls in the frequency and perceived severity of victimization (Chen et al., 2015).

METHOD

Participants

This study is part of a larger project (see also van Noorden, Haselager, Cillessen, & Bukowski, 2014), in which the potential sample consisted of a pool of 838 children recruited from 34 third- to fifth-grade classrooms of 11 elementary schools. The schools were located in villages and cities in the Eastern part of The Netherlands with average socioeconomic status. School principals and teachers agreed to participate in the study. As approved by the ethical review committee of the first author's home institution, parents and children were informed about the nature and procedure of the study with a letter and could indicate if they did not want their child to participate. Nine children were not allowed to participate by their parents; no children objected to participation themselves or stopped during the study. Twenty-nine children were absent during data collection, resulting in a final sample of 800 children (50.5% boys) between 7 and 12 years (M = 10.01, SD = 1.01), with 776 children (97.0%) born in The Netherlands. All children received a small gift and teachers received a €10 voucher as a token of appreciation.

Procedure

During the second half of the school year, all children in each classroom completed the questionnaires simultaneously on individual 10 inch netbook computers (see van den Berg & Cillessen, 2013). They sat at separate desks with partitioning screens on both sides to prevent them from seeing each other's screens. To further enhance privacy, we emphasized verbally that the partitioning screens marked children's own personal space and that the data would be processed anonymously and handled confidentially. The nature of the study was explained and it was indicated that we were interested in children's opinions and that there were no right or wrong answers. Children were not allowed to talk to each other during the data collection but they could ask the researchers questions or stop their participation at any time.

Measures

Frequency and perceived severity of bullying and victimization. The bullying definition was provided to the children (cf., Olweus, 1996) and was discussed interactively by asking the children to give examples of different forms (e.g., verbal, physical, relational, cyber). Measurement of frequency and perceived severity of bullying and victimization took place in three steps. First, two self-report questions were asked: "Who in your classroom have you bullied?" and "Who in your classroom has bullied you?". Children were asked to answer the question with regard to the current school year. Children could nominate none up to all of their classmates. The names of the classmates – excluding their own name – were

presented on the computer screen in randomized order between participants, but in a fixed order within participants.

Second, based on the measurement approach of the Revised Olweus Bully/Victim Questionnaire (Olweus, 1996) we made a further distinction between different forms of bullying/victimization. Children were asked, separately for each nominated classmate, to identify the form in which the children had bullied that classmate (bullying) or had been bullied by that classmate (victimization). Five options were given: a) pushed, kicked, or hit (physical), b) called names (verbal), c) gossiped (relational), d) excluded or ignored (relational), e) via the Internet or phone (cyber). Children could select one up to all five forms.

Third, children were asked, separately for each nominated classmate and form of bullying or victimization, to indicate frequency and perceived severity. Frequency was measured by asking how often each bullying or victimization had occurred ("How many times have you bullied [nominated classmate] by [identified form]?" "How many times has [nominated classmate] bullied you by [identified form]?", respectively). Children could answer by filling in the number and choosing the corresponding period (day, week, month, year; presented in a dropdown menu). Perceived severity was measured by asking how severe they thought each indicated form of bullying or victimization was. Children could answer this question by clicking on a visual analogue scale – coded as a 100-point scale – with anchors "not severe" [1] and "very severe" [100].

Afterwards, to make the answers comparable, all frequency scores were converted to weeks (e.g., once a week became a score of 1; three times per month became 0.69). For each child a mean frequency score was calculated by dividing the sum of frequencies by the number of nominated classmates for the frequency question. A mean score of perceived severity was calculated by dividing the total sum by the number of nominated classmates for the perceived severity question.

The frequency and perceived severity scores were screened for outliers, defined as values greater than 3 *SD* above or below the mean. Outlier values ($n = 7$) were winsorized at 3 *SD* below or above the mean (see Tukey, 1977). Based on their frequency and perceived severity scores, children were also assigned to a noninvolved, occasional, or frequent group as well as a noninvolved, mild, or severe group. Children with frequency and perceived severity scores of 0 were assigned to the noninvolved group (a score of 0 on one of the variables automatically implied a score of 0 on the other variable). Children with frequency scores of more than 0 and less than 1 (indicating less than once a week) were considered the occasional group. Children with frequency scores of 1 or more (indicating once a week or more) were considered the frequent group. Children with perceived severity scores between 1 and 50 (lower half of the scale) formed the mild group and children with perceived severity scores between 51 and 100 (upper half of the scale) formed the severe group. This procedure was conducted separately for bullying and victimization.

Empathy. Empathy was measured with an adapted version of the Basic Empathy Scale (BES; Jolliffe & Farrington, 2006a). Like the original BES, the adapted scale consists of 20 items, measuring cognitive empathy (9 items) and affective empathy (11 items). An example cognitive item is "I can understand my friend's happiness when she/he does well at something"; an example affective item is "After being with a friend who is sad about something, I usually feel sad". Originally negatively formulated questions were reformulated into positive formulations. Participants indicated to what extent they agreed with each statement on a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). The reliability of both scales was high (both αs = .83).

RESULTS

Descriptives

The first research question focuses on the associations of frequency and perceived severity of bullying and victimization with cognitive and affective empathy in the full sample. The correlations among all study variables in the full sample are shown in Table 3.1. It is noteworthy that frequency and perceived severity of both bullying and victimization were moderately correlated (r = .32, p < .001, and r = .39, p < .001, respectively). None of the correlations differed between boys and girls when tested with Fisher's r-to-Z transformations.

Table 3.1 *Correlations Among Study Variables in the Full Sample*

	M (SD)	1.	2.	3.	4.	5.
1. Bullying Frequency	1.39 (7.33)	--				
2. Bullying Severity	9.06 (20.02)	.32***	--			
3. Victimization Frequency	4.98 (12.33)	.06	.09**	--		
4. Victimization Severity	31.12 (33.52)	-.01	.21***	.39***	--	
5. Cognitive Empathy	3.77 (0.64)	-.17***	-.08*	.03	.05	--
6. Affective Empathy	2.83 (0.72)	-.11**	-.03	.11**	.16***	.43***

Note. Frequency means represent the number of bullying/victimization incidents per week; Severity means represent the score on 100-point scale; Empathy means represent the score on 5-point scale.
* p < .05. ** p < .01. *** p < .001.

The second research question deals with the unique associations of frequency and perceived severity with cognitive and affective empathy in the subsample of children involved in bullying and/or victimization. Within this subsample of children *involved* in bullying (n = 203; 39.4% girls) and victimization (n = 462; 51.5% girls), the correlation between continuous frequency and continuous perceived severity was nonsignificant for bullies, r = .11, p > .05. For victims, a weak positive correlation was found, r = .20, p < .001.

Again, no differences between boys and girls were found regarding these associations, when tested with Fisher's *r*-to-*Z* transformations.

Comparisons of Noninvolved with Frequency and Perceived Severity Groups on Empathy

To answer the first research question, the cognitive and affective empathy scores of children who were not involved in bullying were compared with children who were occasionally and frequently involved, as well as with children who were mildly and severely involved. The group means are presented in Table 3.2. Separate ANOVAs were conducted for both bullying and victimization. To account for possible differences between boys and girls, gender was included as an independent variable and moderator. Significant effects of frequency and perceived severity were followed by post-hoc tests in the form of multiple comparisons with Bonferroni correction.

Table 3.2 *N, Mean, and Standard Deviation of Cognitive and Affective Empathy for Frequency and Severity Groups of Bullying and Victimization*

		Frequency		Severity	
	Not Involved	Occasionally Involved	Frequently Involved	Mildly Involved	Severely Involved
Bullying	*N* = 597	*N* = 102	*N* = 101	*N* = 130	*N* = 73
Cognitive	3.80[a] (0.64)	3.75 (0.56)	3.60[a] (0.73)	3.68 (0.57)	3.66 (0.78)
Affective	2.86 (0.71)	2.80 (0.75)	2.68 (0.73)	2.69 (0.68)	2.82 (0.84)
Victimization	*N* = 338	*N* = 155	*N* = 307	*N* = 183	*N* = 279
Cognitive	3.77 (0.66)	3.72 (0.56)	3.79 (0.67)	3.73 (0.57)	3.79 (0.67)
Affective	2.73[bc] (0.70)	2.84 (0.67)	2.92[b] (0.74)	2.79[d] (0.70)	2.96[cd] (0.72)

Note. Means with identical letters were significantly different from each other; standard deviations are indicated in parentheses.

Bullying. For cognitive empathy, a main effect of frequency was found, $F(2, 794) = 3.50$, $p = .031$, $\eta^2_{partial} = .009$. The post-hoc test showed that frequent bullies reported significantly less cognitive empathy than nonbullies ($p = .014$). The results did not reveal a main effect of perceived severity on cognitive empathy. In addition, gender did not have a main effect and did not interact with frequency or perceived severity.

For affective empathy, there were no main effects of frequency or perceived severity or interactions of frequency and perceived severity with gender. However, there was a main effect of gender when controlling for frequency, $F(1, 794) = 73.69$, $p < .001$, $\eta^2_{partial} = .085$, as well as when controlling for perceived severity, $F(1, 794) = 75.32$, $p < .001$, $\eta^2_{partial} = .087$. Inspection of the means indicated that girls ($M = 3.09$) reported more affective empathy than boys ($M = 2.57$).

Victimization. For cognitive empathy, there were no main effects of frequency or perceived severity or interactions of frequency and perceived severity with gender. There was a main effect of gender when controlling for frequency, $F(1, 794) = 4.79$, $p = .029$, $\eta^2_{partial} = .006$, and when controlling for perceived severity, $F(1, 794) = 5.73$, $p = .017$, $\eta^2_{partial} = .007$. Inspection of the means indicated that girls ($M = 3.82$) reported more cognitive empathy than boys ($M = 3.71$).

A significant effect of frequency was found for affective empathy, $F(1, 794) = 4.71$, $p = .009$, $\eta^2_{partial} = .012$. Multiple comparisons indicated that frequent victims – but not occasional victims – showed significantly more affective empathy than nonvictims when controlling for gender ($p = .001$). There was also a main effect of perceived severity, $F(1, 794) = 9.57$, $p < .001$, $\eta^2_{partial} = .024$. Post-hoc comparisons indicated that severe victims showed more affective empathy than nonvictims ($p < .001$) as well as mild victims ($p = .015$). In addition, the main effect of gender was significant when controlling for frequency, $F(1, 794) = 98.55$, $p < .001$, $\eta^2_{partial} = .110$, and when controlling for perceived severity, $F(1, 794) = 116.65$, $p < .001$, $\eta^2_{partial} = .128$. Inspection of the means indicated that girls ($M = 3.09$) reported more affective empathy than boys ($M = 2.57$).

Unique Associations of Frequency and Perceived Severity and Interaction with Empathy

In order to test the unique effects of frequency and perceived severity when controlling for gender, four separate hierarchical regression analyses were conducted with the continuous frequency and perceived severity scores of involved children as predictor variables and cognitive or affective empathy as the outcome variable. That is, the analyses were performed separately for cognitive empathy and affective empathy and separately for bullying and victimization. To test the effect of severity beyond the effect of the commonly used frequency we entered them in separate steps. In Step 1 of each analysis, gender was entered (dummy coded; 0 = boys, 1 = girls). The more commonly used frequency indicator was entered in Step 2. Perceived severity was entered in Step 3. Step 4 contained all two-way interactions between frequency, perceived severity, and gender. Step 5 contained the three-way interaction. Because Steps 4 and 5 did not reveal significant results in any of the analyses, they were not further considered. The results of Steps 1-3 of the four hierarchical regression analyses are presented in Table 3.3.

Bullying. In the analysis of cognitive empathy, Step 1 showed no effect of gender, indicating that boys and girls who bully did not differ in their levels of cognitive empathy. Step 2 revealed a significant negative association of frequency, meaning that more frequent bullying was associated with lower levels of cognitive empathy. Step 3 showed no significant effect of perceived severity, indicating that the perceived severity of bullying was not associated with cognitive empathy beyond the effect of the frequency of bullying.

In the analysis of affective empathy, Step 1 showed a significant effect of gender; girls who bully reported more affective empathy than boys who bully. Step 2 showed a

significant negative association of frequency, indicating that more frequent bullying was associated with lower levels of affective empathy. Step 3 showed a significant positive association of perceived severity, meaning that more severe bullying was associated with higher levels of affective empathy beyond the effect of the frequency of bullying.

Table 3.3 *Results for the Regression of Cognitive and Affective Empathy on Gender and the Frequency and Severity of Bullying and Victimization*

	Bullying				Victimization			
	Cognitive Empathy		Affective Empathy		Cognitive Empathy		Affective Empathy	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	<.01		.17***		<.01		.11***	
Gender		.03		.41***		.06		.33***
Step 2	.09***		.02*		<.01		<.01	
Frequency		-.29***		-.15*		.04		.08
Step 3	<.01		.02*		.01*		.03***	
Severity		<.01		.15*		.12*		.08***
Total R^2	.09**		.21***		.02*		.15***	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Victimization. The analysis of cognitive empathy showed that in Step 1 gender was not significantly associated with cognitive empathy; victimized boys and girls did not differ in their levels of cognitive empathy. Step 2 showed no significant effect of frequency, indicating that the frequency of victimization incidents was not associated with cognitive empathy. Step 3 showed a significant positive effect of perceived severity, indicating that more severe victimization was associated with higher levels of cognitive empathy beyond the effect of the frequency of victimization.

For affective empathy, Step 1 revealed a significant effect of gender, with victimized girls reporting more affective empathy than victimized boys. Step 2 showed no significant effect of frequency, indicating that the reported frequency of victimization incidents was not associated with affective empathy. Step 3 revealed a significant positive association of perceived severity, meaning that more severe victimization was associated with higher levels of affective empathy beyond the effect of the frequency of victimization.

DISCUSSION

This study examined the associations of frequency and perceived severity of bullying and victimization with empathy. Two research questions were addressed. The first focused on a comparison of the empathy levels of noninvolved children to those of occasionally and frequently involved children and to those of mildly and severely involved children. The second research question addressed the unique associations of frequency and perceived severity with empathy and the additive value of perceived severity beyond frequency among involved children. Both research questions were investigated separately for bullying and victimization and will be discussed accordingly.

Disentangling Frequency and Perceived Severity of Bullying

When focusing on the entire sample of children, including those who were not involved in bullying, frequency and perceived severity of bullying were moderately associated. However, among children who were actually involved in bullying, frequency of bullying was not associated with perceived severity. This indicates that bullies do not regard their more frequent bullying incidents to be more severe than their less frequent bullying incidents.

The distinction between the frequency and perceived severity of bullying is also reflected in the finding that frequent bullies differ from nonbullies in cognitive empathy, whereas severe bullies did not differ from nonbullies in cognitive empathy. Neither frequent nor severe bullies differed from nonbullies in affective empathy. These findings demonstrate that children who bully frequently and severely are just as able to experience others' emotions as children who do not bully, whereas children who bully frequently – but not severely – are less able to understand others' emotions than are children who are not involved in bullying. An interpretation of these findings is that children who have difficulty with understanding how others feel bully more because they are unaware of how their actions impact their victims.

Among children involved in bullying, frequency of bullying was negatively associated with both cognitive and affective empathy (partially in line with Jolliffe & Farrington, 2006b). In the current study perceived severity of bullying was positively associated with affective empathy but not with cognitive empathy. The finding that the associations of frequency and perceived severity of victimization with affective empathy are in opposite directions, emphasizes that frequency and perceived severity of bullying are different constructs. Regarding the negative association between frequency of bullying and empathy, it seems plausible that having lower levels of cognitive and affective empathy leads children to bully others more frequently as they are not likely to foresee the negative consequences of their actions for others. However, as the present study was correlational, it is also possible that bullying others more frequently leads to less cognitive and affective empathy. In this case lowered empathy could serve as a way to cope with the negative cognitions and feelings the bully must experience.

The positive association between bullying perceived severity and affective empathy suggests that when children who are able to experience others' emotions bully – regardless of how frequently – they perceive their behavior as more severe. Based on the positive association between affective empathy and shame (Leith & Baumeister, 1998), it is possible that children with higher levels of affective empathy feel more ashamed of their bullying behavior and therefore perceive it as more severe. An alternative explanation is that bullies who are able to feel what their victims feel are better able to harass others in quality, rather than quantity, by targeting their victims' vulnerabilities.

Disentangling Frequency and Perceived Severity of Victimization

The frequency and perceived severity of victimization were moderately positively associated in the entire sample, but weakly associated in the subsample involved in victimization. This indicates that the frequency and perceived severity of victimization are related, but cannot be equated to each other.

Regarding the first research question, consistent with Poteat and Espelage (2005), we found that occasional and frequent victims as well as mild and severe victims did not differ in cognitive empathy from children who were not victimized. In addition, in line with Caravita et al. (2010), frequent victims but also severe victims reported more affective empathy than nonvictims. Together, these findings indicate that we have no reason to believe that victims differ from children who are not victimized in their ability to understand others' emotions, whereas they do appear to experience others' emotions to a larger extent than children who are not victimized. It is possible that children who are more able to experience others' emotions are more sensitive to emotions in general. If these children also display their emotions to a larger extend, this may make them more appealing to bullies who proactively want to hurt them and see the result of their bullying, in turn resulting in more frequent and severe victimization. This potential general sensitivity to emotions could also lead them to perceive their victimization as more frequent and severe because they experience their emotions more intensely. It is also possible that these empathic children perceive their victimization as more frequent and severe than less empathic children because they have more experience with sensing how other victims feel after being bullied, making these feelings more salient or accessible to them.

Among self-reported victims, frequency of victimization was not associated with cognitive or affective empathy (in line with Belacchi & Farina, 2012; Poteat & Espelage, 2005). That is, although frequent victims reported higher levels of affective empathy than nonvictimized children, children who are victimized more frequently do not differ in cognitive or affective empathy from children who are victimized less frequently. In contrast, we found positive associations of perceived severity of victimization with cognitive and affective empathy. This indicates that, in addition to severe victims reporting higher levels

of affective empathy than nonvictims, children who perceive their victimization as more severe reported higher levels of understanding and experiencing others' emotions than children who perceive their victimization as less severe. It is possible that being victimized and the emotions that follow from it cause children to be better able to understand and experience how others feel as well. At the same time, it is also likely that very empathic children experience being bullied as more severe, because they are more in contact with emotions in general, including their own.

Disentangling Frequency and Perceived Severity in Bullying Versus Victimization

The present study demonstrated that the frequency and perceived severity of bullying and victimization are quantitatively different and have unique associations with cognitive and affective empathy. Throughout the study, it appears that in the association between bullying and empathy it is the frequency that plays a main role, whereas in the association between victimization and empathy it is the perceived severity that plays the largest role. For example, frequency of bullying is associated with cognitive and affective empathy, whereas frequency of victimization is not. For the subsample of victims, the severity of their victimization is associated with cognitive and affective empathy, whereas for the subsample of bullies, the severity of their bullying is only associated with one of the two empathy forms (i.e., affective). The finding that frequency plays a larger role in bullying than in victimization is in line with the review by van Noorden and colleagues (2015). They concluded, based on studies that often relied on frequency-based measures, that bullying is generally negatively associated with empathy, whereas there was less evidence for an association of victimization with empathy. Furthermore, by using self-report measures, bullies reported on behavior that they caused, whereas victims reported on behavior that happened to them. This focus on experiences emphasizes the more external nature of bullying and the more internal nature of victimization, which corresponds with the more observable nature of frequency and the more personal and implicit nature of perceived severity.

Gender Differences

Throughout the study, gender differences in empathy were found. In general, girls reported more cognitive and affective empathy than boys, in line with previous literature using self-reports (for a review, see Rose & Rudolph, 2006). When specifically looking at children involved in bullying or victimization, girls reported more affective empathy than boys, but did not differ from boys in cognitive empathy. Despite these main effects of gender on empathy, no interactions with frequency or perceived severity were found. This indicates that the associations of frequency and perceived severity of bullying involvement with empathy are similar for boys and girls.

Limitations and Future Directions

Due to the correlational nature of the study we cannot draw conclusions on the directionality of the found associations. Adopting experimental designs in future research on bullying and victimization is highly unlikely as this raises serious ethical concerns. However, longitudinal studies may shed more light on the development of the associations of the frequency and perceived severity of bullying and victimization with cognitive and affective empathy.

The sole reliance on self-reports may be considered a limitation as some of these victims may not have been identified as victims by their peers. However, this is not necessarily problematic for the current study as we were specifically interested in the frequency and severity of bullying and victimization as perceived by children themselves, regardless of whether this is in accordance with what the peer group thinks. Overall, self-reports and peer-reports tend to be moderately correlated (e.g., Bouman et al., 2012; Branson & Cornell, 2009). In future research both methods could be included to investigate differences in perspectives on frequency and severity of bullying and victimization. The view of the peer group in the frequency and perceived severity of bullying and victimization, apart from outsiders' own experiences, may also be extremely valuable to consider in future research. That is, the peer group may perceive things differently, and aggressive children may underestimate – or underreport – their own bullying behaviors.

Moreover, it is possible that we have been too conservative in our frequency measure by taking mean scores rather than sum scores, resulting in a potential underestimation of the frequency of bullying and victimization. However, we needed to take into account that multiple forms of bullying may co-occur during a single session. Using sum scores would disregard this possibility. In addition, mean scores – unlike sum scores – are not dependent on the number of given nominations. In this way the severity score is unrelated to the classroom size, and the number of bullies nominated.

The explained variance by frequency and severity of bullying and victimization is small, indicating that other processes in empathy are of influence. Demonstrating the different associations of frequency and perceived severity with empathy was a first step. Future research can use the distinction between frequency and perceived severity to gain further insight into bullying and victimization in association with well-being, adjustment, health outcomes and school performance. For example, previous research has already established links of bullying and victimization with serious negative health outcomes (e.g., Rigby, 2000; Ttofi & Farrington, 2008). It will be important to examine in future research whether certain types of adjustment problems are specifically linked to frequent or severe bullying and victimization.

A last potential limitation of the current study is that we did not exclude children who were involved in both bullying and victimization, a group of children identified as bully/victims. Previous research has demonstrated that bully/victims have difficulties across

domains of social-cognitive functioning (Toblin, Schwartz, Hopmeyer Gorman, & Abou-ezzeddine, 2005). However, the review of van Noorden et al. (2015) shows that bully/victims are generally found to be similar to bullies and victims in cognitive and affective empathy. Therefore, it is unlikely that the inclusion of bully/victims has biased the current study.

Practical Implications

The present study provides evidence for a distinction between the frequency and perceived severity of bullying and victimization. This implies that the frequency does *not* necessarily determine the perceived severity of bullying and victimization. Therefore, we would like to advise teachers, parents, peers, and researchers to attend to the perceived severity of bullying and victimization, in addition to the frequency of these behaviors. One should not merely focus on frequency and simply assume that children are less affected by occasional bullying than by frequent bullying. Moreover, bullying intervention programs may want to re-evaluate their sole reliance on the frequency of bullying and victimization. The effectiveness of such programs may be underestimated when interpreting the small – or absent – decrease in the frequency in bullying and victimization, despite a potential larger decrease in the perceived severity of incidents. Therefore, we recommend including measures of the perceived severity of bullying and in particular victimization, in addition to measures of frequency in research on the effects of implemented interventions.

Chapter 4

Bullying Involvement and Empathy: Child and Target Characteristics

van Noorden, T. H. J., Cillessen, A. H. N., Haselager, G. J. T., Lansu., T. A. M., & Bukowski, W. M. (in press). Bullying involvement and empathy: Child and target characteristics. *Social Development.*

ABSTRACT

This study investigated how the bullying involvement of a child and a target peer are related to empathy. The role of gender was also considered. We hypothesized that empathy primarily varies depending on the bullying role of the target peer. Participants were 264 7-12 year-old children (M_{age} = 10.02, *SD* = 1.00; 50% girls) from 33 classrooms who had been selected based on their bullying involvement (bully, victim, bully/victim, noninvolved) in the classroom. Participants completed a cognitive and affective empathy measure for each selected target classmate. We found no differences in cognitive and affective empathy for all targets combined based on children's own bullying involvement. However, when incorporating the targets' bullying involvement, bullies, victims, and bully/victims showed less empathy for each other than for noninvolved peers. Noninvolved children did not differentiate between bullies, victims, and bully/victims. Girls reported more cognitive and affective empathy for girls than boys, whereas boys did not differentiate between girls and boys. The results indicated that children's empathy for peers depends primarily on the characteristics of the peer, such as the peer's bullying role and gender.

Bullying is typically defined as a subtype of aggressive behavior in which an individual or group intentionally and repeatedly causes harm to a relatively powerless person over time (Olweus, 2010; Salmivalli, 2010; Salmivalli & Peets, 2009). Victimization is defined as the experience of being the target of bullying. Bullying has received increased scientific and public attention internationally due to its high prevalence (e.g., Due et al., 2005) and its detrimental consequences for victims (for reviews, see, Arseneault, Bowes, & Shakoor, 2010; Hawker & Boulton, 2000; Isaacs, Card, & Hodges, 2001; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Troop-Gordon, Rudolph, Sugimura, & Little, 2015) as well as for bullies (for reviews, see, Stassen Berger, 2007; Ttofi, Farrington, & Lösel, 2012; Ttofi, Farrington, Lösel, & Loeber, 2011). Prevention and intervention programs for bullying often include empathy training (see, for an overview, Farrington & Ttofi, 2009). In line with a large body of research, these programs typically treat empathy as a dispositional trait or skill. However, empathy is directed at another person and the identity of this person (the "target") may influence how much empathy one has for her or him. For example, people may have more empathy for a loved one than a stranger. In the context of bullying, children's empathy may depend on a target peer's bullying involvement. For example, children may have more empathy for a victim than a bully, but this may also depend on whether they themselves are victims or bullies. Therefore, the goal of this study was to extend existing knowledge on bullying involvement and empathy by focusing on the bullying role of the peer at whom children's empathy is directed, while also taking children's own bullying role into account. The role of gender was also considered.

Bullying Involvement and Empathy

A recent review by van Noorden, Haselager, Cillessen, and Bukowski (2015) revealed distinct associations of bullying and victimization with affective and cognitive empathy. Affective empathy is the ability to experience another person's emotions (e.g., Mehrabian & Epstein, 1972), whereas cognitive empathy is the ability to understand another person's emotions (e.g., Hogan, 1969). In the review, bullying was found to be negatively associated with affective empathy. The association of bullying with cognitive empathy was mixed, with some studies finding a negative association and others indicating no association. This suggests that children who bully are not necessarily incapable of understanding others' feelings, but appear to experience others' feelings to a lesser extent. In addition, victimization was observed to be negatively associated with cognitive empathy but not with affective empathy, suggesting that victimized children are just as capable as non-victimized children to experience what others feel, but report more difficulty understanding in others' feelings.

In addition to studies using continuous measures of bullying and victimization, a few studies have examined group differences in cognitive and affective empathy to directly

compare children involved in bullying and/or victimization. Group comparisons between bullies, victims, bully/victims (who bully others and are victimized themselves), and non-involved children (neither bully nor victim) were less conclusive (van Noorden et al., 2015). In one study bullies reported less affective empathy than was reported by victims, and bully/victims reported less affective empathy than was reported by victims and by noninvolved peers (Raskauskas, Gregory, Harvey, Rifshana, & Evans, 2010). In another study victims reported more cognitive empathy than was reported by non-involved peers, whereas victims did not differ from bullies and bully/victims (Williford, Boulton, & Jenson, 2014). Other studies found no group differences in affective or cognitive empathy (Espelage, Mebane, & Adams, 2004; Park, 2013; Warden & Mackinnon, 2003).

Target Empathy and Bullying Involvement

The studies reviewed above focused on the association between children's own bullying involvement and their ability to have empathy for others. However, empathy - as the understanding and experience of another person's emotions - by definition implies an empathy target. In spite of this, the empathy measures of previous studies included an unsystematic and wide variety of possible empathy targets, including friends (e.g., "It is hard for me to understand when my friends are sad" in the Basic Empathy Scale; Jolliffe & Farrington, 2006), classmates (e.g., "When a classmate is sad because she/he does not have someone to be with, do you feel bad?"; Chaux, Castro, Daza, Díaz, & Hurtado, 2004), loved ones ("When somebody I care about is sad, I feel sad too" in the How I Feel in Different Situations scale; Bonino, Lo Coco, & Tani, 1998), peers ("When I see other adolescents who feel bad, I empathize with them"; Zhou, Valiente, & Eisenberg, 2003), people who are worse off ("I often have tender, concerned feelings for people less fortunate than me" in the Interpersonal Reactivity Index; Davis, 1980, 1983), strangers ("It makes me sad to see a lonely stranger in a group" in the Questionnaire Measure of Emotional Empathy; Mehrabian & Epstein, 1972), or simply others in general ("I am not really interested in how other people feel" in the Toronto Empathy Questinonaire; Spreng, McKinnon, Mar, & Levine, 2009). Sometimes the target was even an animal (e.g., "I get upset when I see an animal being hurt" in the Index of Empathy for Children and Adolescents [IECA]; Bryant, 1982), a situation (e.g., "Emergency situations make me feel worried and upset" in the Feeling and Thinking Instrument; Garton & Gringart, 2005), or a television scene (e.g., "It often makes me distressed when I see something sad on TV" in the Empathic Responsiveness Questionnaire [ERQ]; Olweus & Endresen, 1998).

Because the dependent variables derived from these empathy measures were composite scores collapsed across such varying empathy target categories, the influence of the identity of the target on the association between bullying involvement and empathy remains unclear. However, previous research has shown that people do take target characteristics

into account in emotion-related processes. For example, it was easier to accurately infer the emotions and feelings of friends than of strangers (Stinson & Ickes, 1992). Or, another person's negative emotions due to social exclusion were shared more when the excluded person was a friend than a stranger (Meyer et al., 2013).

Gender of the Empathy Target and Bullying Involvement

In addition to familiarity with the other person, as in the last two examples, empathy also has been found to be influenced by a target's gender. Feshbach and Roe (1968) demonstrated that 6-7 year-old children showed more affective empathy toward same-sex peers than toward other-sex peers. Bryant (1982) extended this by showing that boys' affective empathy for boys decreased across Grades 1, 4, and 7, whereas girls' affective empathy for girls increased over this same period. Averaging across grades, boys did not differentiate between boy and girl targets, whereas girls showed more affective empathy for girl than boy targets. In a sample of 13-to-16 year-olds, Olweus and Endresen (1998) found the opposite: the difference in affective empathy toward girl and boy targets increased with age for boys, but decreased for girls. All three studies were conducted with measures of affective empathy only, leaving differences in cognitive empathy for boy and girl targets unexplored.

Taking the bullying involvement of the child and the gender of both the child and target into account, Endresen and Olweus (2001) revealed that the gender of the target plays a role in the association between bullying and empathy. They found that bullying and empathy were negatively associated for boys but not for (younger) girls when the target was a boy, whereas bullying and empathy were negatively associated for girls but not for boys when the target was a girl. Despite these findings, later studies on bullying involvement using empathy measures that distinguished between boy and girl targets, such as the IECA (Bryant, 1982) and the ERQ (Olweus & Endresen, 1998), combined the empathy scores toward both genders into an overall affective empathy score ignoring the empathy target's gender (Barchia & Bussey, 2011; Cappadocia, Pepler, Cummings, & Craig, 2012; Correia & Dalbert, 2008; Nickerson & Mele-Taylor, 2014; Nickerson, Mele, & Princiotta, 2008; Park, 2013; Raskauskas et al., 2010; Warden & Mackinnon, 2003; Woods, Wolke, Nowicki, & Hall, 2009).

Present Study

This study examined the effects of children's bullying involvement and gender on empathy by considering the bullying role and gender of both the participant (the empathizing child) and the target (the object of empathy). Whereas previous research on bullying and empathy focused on a broad range of targets, this study focuses on specific familiar peers (classmates). We first investigated whether children's empathy for a specific classmate depended on children's own bullying involvement. That is, we tested whether bullies, victims, bully/victims, and noninvolved children differed in cognitive and affective empathy for these

specific peers. Because previous research on this association yielded inconsistent results (see van Noorden et al., 2015), this test was exploratory. We did not expect an interaction between the bullying role and gender of the empathizing children as few gender differences have been found in the association between bullying involvement and empathy (van Noorden et al., 2015).

Previous research indicates that emotion-related processes depend on target characteristics (Meyer et al., 2013; Stinson & Ickes, 1992). Therefore, we hypothesized that the bullying role of the target plays a role in how much empathy children feel for him or her. Furthermore, we expected that the effect of target bullying role might depend on the empathizer's own bullying role. Thus, we tested whether bullies, victims, bully/victims, and noninvolved children differed in their cognitive and affective empathy for other bullies, victims, bully/victims, and noninvolved children. Because denying oneself empathy for specific others may be a way to prevent negative emotions after aggressing against them, we expected bullies to have less empathy for victims and bully/victims than for noninvolved children. We hypothesized that victims would have less empathy for bullies and bully/victims than noninvolved children, because victims might be less likely to understand and experience the emotions of children who are able to harm other children. Hypotheses regarding bully/victims were exploratory. On the one hand bully/victims may have less empathy for bullies and victims than for noninvolved children. They may show less empathy toward victims in order to feel less negative about their own bullying behavior; they may show less empathy toward bullies because these bullies may have hurt them, and they do not want to be emotionally connected to their bullies. On the other hand, it is also possible that bully/victims do not differentiate between bullies, victims, and noninvolved peers – or may even have more empathy for bullies and victims than for noninvolved peers – based on having been shared experiences in the position of a bully as well as a victim, making it easier to relate to both groups of peers. Whether noninvolved children distinguished between bullies, victims, and bully/victims was tested exploratively.

We explored whether these effects were further qualified by the gender of the child and the target. As our participants were 7-to-12 year-old children, based on Bryant (1982) we expected that girls would have more cognitive and affective empathy for girls, but that boys would not differentiate between girls and boys. Because only one boy and one girl were included in each bullying role, empathy towards one's own role was not investigated. Based on distinct associations with bullying involvement (van Noorden et al., 2015), cognitive and affective empathy were considered separately throughout the study.

METHOD

This study consisted of two phases and was part of a larger project (van Noorden, Bukowski, Haselager, Lansu, & Cillessen, 2016; van Noorden, Haselager, Cillessen, & Bukowski, 2014; van Noorden, Haselager, Lansu, Cillessen, & Bukowski, 2015). In Phase 1, peer nomination data for bullying and victimization were collected in elementary school classrooms. Based on nominations received, eight children from each classroom were invited to participate in Phase 2 in which cognitive and affective empathy toward specific classmates was measured.

Phase 1: Bullying and Victimization

Participants. For Phase 1, 838 children from 34 third- to fifth-grade classrooms of 11 elementary schools in The Netherlands were approached for participation. After school principals and teachers agreed to participate, parents were informed about both phases of the project in a letter. The study used a passive consent procedure, with the option to opt out of the study clearly presented in the information letter along with contact information of the researchers. Parents and children could object to participation at all times, whether it was prior, during, or after the data collection. This procedure was approved by the ethics committee of the first author's home institution. Parents of nine children objected to participation; no children objected themselves or stopped during the study. Due to the absence of 29 children, the final sample of Phase 1 consisted of 800 children (50.5% boys) between 7 and 12 years (M = 10.01, SD = 1.01), with 776 children (97.0%) born in The Netherlands. Afterwards, all children received a small present and teachers received a €10 voucher as a token of our appreciation.

Procedure and materials. Phase 1 took place in the participants' classrooms where they completed the measures simultaneously on individual 10" inch netbook computers. The children sat at separate desks with partitioning boards on both sides to prevent them from seeing each other's screens. The instructions indicated that we were interested in children's opinions and that there were no right or wrong answers. We told participants that their answers would be processed anonymously and handled confidentially. During the data collection, children were not allowed to talk to each other but could ask the researchers questions at any time.

During the introduction, definitions of bullying and victimization (cf., Olweus, 1996) were provided and discussed. As part of the data collection, children completed peer nominations for bullying ("Who in your classroom bullies others?") and victimization ("Who in your classroom is bullied by others?"). They were asked these questions once for girl classmates and once for boy classmates. Children could answer by nominating from one up to all classmates whose names were presented on their screen in a random order.

Phase 2: Target Empathy

Participants. Based on the number of nominations received for bullying and victimization in Phase 1, eight children were selected from each classroom: a boy and girl bully (who scored in the highest quartile of bully nominations and lowest quartile of victim nominations), a boy and girl victim (who scored in lowest quartile of bully nominations and highest quartile of victim nominations), a boy and girl bully/victim (who scored in the highest quartile of both bully and victim nominations), and a noninvolved boy and girl (who scored in the lowest quartile of both nominations). If more than one boy or girl met the criteria for a role, the child who fit the role the best (in terms of nominations received) was selected (see Table 4.1, for the mean standardized bullying and victimization scores for each bullying role per gender).

Table 4.1 *Mean Standardized (per Classroom) Bullying and Victimization Scores of Bullies, Victims, Bully/Victims and Noninvolved per Gender*

	Bullying		Victimization	
	Boys	Girls	Boys	Girls
Bullies	1.22	1.06	-0.19	-.10
Victims	-0.17	-0.15	1.18	1.04
Bully/Victims	0.78	0.83	0.52	0.78
Noninvolved	-0.45	-0.47	-0.42	-0.43

None of the selected children declined the invitation to participate in Phase 2. Data from one classroom were excluded due to disturbances during the Phase 2 data collection (two children had a meeting with a counselor and parents in the middle of the session, children from another classroom entered the room and started talking to the participants). This yielded a final sample of 264 children (132 boys and 132 girls) from 33 classrooms (M_{age} = 10.02, SD = 1.00, range 7-12 years). Again, all children who participated in Phase 2 of the data collection received a small present as a token of our appreciation.

Procedure and materials. Phase 2 took place in a separate room at the participants' schools with all eight children completing the measures simultaneously on individual 10" netbook computers, separated by partition screens. The instructions stated that children were asked to answer questions about the other seven children in their group. We emphasized that the questions concerned personal opinions and that the answers would be processed anonymously and handled confidentially.

Cognitive empathy (four items) and affective empathy (four items) were measured toward each of the seven other children in the group. Items were selected from the adapted version of the Basic Empathy Scale (BES; Jolliffe & Farrington, 2006) – which was used

in Phase 1 as part of the larger project (*van Noorden et al., 2016*) – and transformed to make the questionnaire target specific. For example, the cognitive item "I can understand my friend's happiness when she/he does well at something" was transformed to "I can understand *Child X*'s happiness when *she/he* does well at something"; the affective item "I become sad when I see other people crying" was transformed to "I become sad when I see *Child X* crying". Participants indicated to what extent they agreed with each statement by clicking on a visual analogue scale – coded as a 100-point scale – with the anchors "strongly disagree" [1] and "strongly agree" [100]. The reliabilities (Cronbach's α) of the scales for the four target roles ranged from .67 to .69 for cognitive empathy and from .76 to .83 for affective empathy.

RESULTS

Child Characteristics in Bullying and Empathy

We first tested whether bullies, victims, bully/victims, and noninvolved children differed in cognitive and affective empathy for classmates in general. To do so, we averaged children's cognitive and affective empathy scores across all targets with a bullying role other than their own (see the 'total' column in Table 4.2). We then conducted a 4 (Participant Bullying Role: Bully, Victim, Bully/Victim, NonInvolved) × 2 (Participant Gender: boy, girl) ANOVA on these generalized cognitive and affective empathy scores.

Table 4.2 *Cognitive and Affective Empathy Means and SDs (in Parentheses) of Bullies, Victims, Bully/Victims and Noninvolved for Each Other*

	Target				
	Total	Bullies	Victims	Bully/Victims	Noninvolved
Cognitive Empathy					
Bullies	56.1 (18.8)	/	54.6 (21.0)	52.3 (21.7)	61.3 (21.0)
Victims	49.1 (17.6)	47.1 (19.0)	/	47.7 (19.4)	52.5 (19.7)
Bully/Victims	55.6 (16.0)	52.4 (18.9)	54.0 (18.1)	/	60.3 (17.7)
Noninvolved	51.2 (16.6)	51.8 (17.1)	51.2 (20.1)	50.5 (17.4)	/
Affective Empathy					
Bullies	26.1 (20.3)	/	24.3 (20.4)	23.6 (22.6)	30.3 (23.9)
Victims	24.0 (17.3)	23.0 (17.8)	/	22.1 (18.2)	27.0 (19.3)
Bully/Victims	26.2 (19.6)	24.6 (20.1)	23.5 (20.6)	/	30.4 (21.8)
Noninvolved	24.0 (15.1)	24.2 (15.6)	23.7 (15.9)	24.0 (15.9)	/

For cognitive empathy, the main effects of participant bullying involvement and participant gender and their interaction were not significant (all F's < 2.5). Bullies, victims, bully/victims, and noninvolved children did not differ in their understanding of the emotions of classmates with a bullying role other than their own. Boys and girls did not differ in this understanding either.

For affective empathy, there was no main effect of participant role ($F < 1$). Bullies, victims, bully/victims, and noninvolved children experienced the emotions of classmates with a bullying role other than their own to an equal extent. There was an effect of participant gender, $F(1, 256) = 6.78$, $p = .01$, $\eta^2_p = .03$. Girls reported more affective empathy for children with a bullying role other than their own ($M = 27.9$, $SD = 18.6$) than boys did ($M = 22.2$, $SD = 17.2$). There was no participant bullying role by participant gender interaction ($F < 1$).

Target Characteristics in Bullying and Empathy

Second, we tested whether children within each type of bullying involvement differentiated in their cognitive and affective empathy between other children based on their role as bully, victim, bully/victim, or noninvolved child. The effects of participant gender and target gender were also examined. In this design, each participant represented a unique combination of bullying involvement and gender. Because empathy toward the self was not measured, there were no measures of empathy for a target with the same bullying involvement and gender as the child's own. Because these cells in the model were empty, it was impossible to test the research question with a single analysis. Therefore, for each type of bullying involvement a 3 (Target Bullying Role: the other three types of involvement) × 2 (Participant Gender: boy, girl) × 2 (Target Gender: girl, boy) mixed design ANOVA was conducted on the cognitive empathy and affective empathy scores with target bullying role and target gender as within-subject factors. The results of these eight tests are presented in Table 4.3. Below, we discuss the significant effects and interactions together with the corresponding post-hoc tests, conducted with Bonferroni corrections.

For bullies, the main effect of target bullying role was significant for both cognitive and affective empathy. Post-hoc tests revealed that bullies had less empathy for victims and bully/victims than for noninvolved children (see Table 4.2). This effect of target bullying role was not further qualified by target gender or participant gender. There was also a significant main effect of target gender that was further qualified by the interaction with participant gender. Girl bullies had more cognitive and affective empathy for other girls ($M_C = 61.7$, $SD_C = 18.8$; $M_A = 36.7$, $SD_A = 25.4$) than for boys ($M_C = 48.8$, $SD_C = 18.4$; $M_A = 23.2$, $SD_A = 21.3$), whereas boy bullies did not differentiate between boys and girls in terms of cognitive and affective empathy.

Table 4.3 *ANOVA Effects for Cognitive and Affective Empathy of Bullies, Victims, Bully/Victims, and Noninvolved Children*

	Bullies (n = 66)			Victims (n = 66)			Bully/Victims (n = 66)			Noninvolved (n = 66)		
	F	p	η^2_p	F	p	η^2_p	F	p	η^2_p	F	p	η^2_p
Cognitive Empathy												
Target Bullying Role (A)	8.32	.001	.21	6.06	.004	.16	9.63	<.001	.23	0.41	.666	.01
Target Gender (B)	10.44	.002	.14	4.64	.035	.07	4.13	.046	.06	10.82	.002	.15
Participant Gender (C)	0.13	.725	<.01	0.90	.346	.01	.022	.883	<.01	0.16	.692	<.01
A * B	0.31	.738	.01	3.93	.025	.11	0.34	.711	.01	1.12	.332	.03
A * C	0.30	.743	<.01	1.67	.196	.05	0.31	.739	.01	0.26	.776	.01
B * C	32.10	<.001	.33	9.46	.003	.13	13.96	<.001	.18	14.98	<.001	.19
A * B * C	0.52	.596	.02	1.21	.304	.04	3.97	.024	.11	1. 00	.373	.03
Affective Empathy												
Target Bullying Role (A)	7.34	.001	.19	8.78	<.001	.22	9.93	<.001	.23	0.11	.897	<.01
Target Gender (B)	9.38	.003	.13	8.79	.004	.12	5.20	.026	.08	2.31	.134	.04
Participant Gender (C)	2.47	.121	.04	2.17	.145	.03	1.87	.176	.03	0.49	.486	.01
A * B	1.54	.223	.05	4.23	.019	.12	0.48	.619	.02	0.06	.944	<.01
A * C	0.48	.623	.02	0.54	.584	.02	0.09	.916	<.01	0.17	.843	.01
B * C	25.27	<.001	.28	16.28	<.001	.20	16.14	<.001	.20	17.67	<.001	.22
A * B * C	2.38	.101	.07	1.23	.298	.04	1.73	.185	.05	1.65	.201	.05

For victims, the main effect of target bullying role was significant for both cognitive and affective empathy. Victims had less empathy for bullies and bully/victims than for noninvolved children (see Table 4.2). Both effects were further qualified by target gender. With regard to girl targets, victims had less cognitive and affective empathy for bully/victims (M_C = 47.7, SD_C = 23.8; M_A = 23.0, SD_A = 20.1) than for noninvolved girls (M_C = 54.8, SD_C = 22.7; M_A = 28.5, SD_A = 22.3). With regard to boy targets, victims had less cognitive and affective empathy for bullies (M_C = 42.6, SD_C = 21.8; M_A = 18.6, SD_A = 17.7) and less affective empathy for bully/victims (M_A = 21.1, SD_A = 19.4) than for noninvolved boys (M_C = 50.3, SD_C = 21.5; M_A = 25.4, SD_A = 20.3). The significant main effect of target gender was further qualified by participant gender for both forms of empathy. Girl victims had more empathy for girls (M_C = 56.6, SD_C = 22.6; M_A = 32.5, SD_A = 20.4) than for boys (M_C = 45.8, SD_C = 19.7; M_A = 21.7, SD_A = 16.4); boy victims did not differentiate between girls and boys in empathy.

For bully/victims, the main effect of target bullying role was significant for cognitive and affective empathy. Bully/victims had less empathy for bullies and victims than for noninvolved children (see Table 4.2). For cognitive empathy, this effect was qualified by the interaction with target gender and participant gender. Post-hoc tests revealed that girl bully/victims had less cognitive empathy for girl victims (M_C = 55.6, SD_C = 19.7) than for noninvolved girls (M_C = 66.5, SD_C = 16.1), whereas boy bully/victims had less cognitive empathy for girl bullies (M_C = 49.6, SD_C = 25.5) than for noninvolved girls (M_C = 58.6, SD_C = 25.1). Both girl and boy bully/victims had less cognitive empathy for boy bullies (M_C = 45.1, SD_C = 21.3; M_C = 54.9, SD_C = 22.7, respectively) than for noninvolved boys (M_C = 51.6, SD_C = 19.5; M_C = 64.3, SD_C = 22.0, respectively). The significant main effect of target gender was qualified by participant gender. Girl bully/victims had more empathy for girls (M_C = 60.8, SD_C = 13.8; M_A = 33.3, SD_A = 21.7) than boys (M_C = 49.7, SD_C = 15.3; M_A = 25.6, SD_A = 20.2), whereas boy bullies did not differentiate between girls and boys in empathy.

For noninvolved children, the main effect of target bullying role was not significant. Noninvolved children did not differentiate between bullies, victims, and bully/victims in terms of cognitive or affective empathy (see Table 4.2). There were no significant interactions of target bullying role with target gender or participant gender. There was a significant main effect of target gender that was qualified by participant gender for cognitive and affective empathy. Post-hoc analyses showed that noninvolved girls had more empathy for girls (M_C = 58.4, SD_C = 19.1; M_A = 29.5, SD_A = 19.1) than for boys (M_C = 45.6, SD_C = 17.8; M_A = 21.1, SD_A = 13.2); noninvolved boys did not differentiate between girls and boys in empathy.

DISCUSSION

Empathy is often thought to be an individual trait or skill, but how much of empathy is actually based on the target? The goal of this study was to investigate the role of child and target characteristics in the association between bullying involvement and empathy. Concerning children's bullying involvement, we found no differences between bullies, victims, bully/victims and noninvolved children in cognitive and affective empathy for their selected classmates in general. But when information about the target's bullying involvement was included, effects were found. All children involved in bullying or victimization demonstrated less empathy for each other than for noninvolved children. The results supported the hypotheses and indicated that children do not empathize with all classroom peers to the same degree; rather, they differentiated between them based on their bullying involvement.

These findings show that bullies, victims, and bully/victims are capable of experiencing empathy to the same extent as noninvolved children and, therefore, that they have developed the empathy skills that are typical for their age. This contradicts the argument that bullies have a general deficiency in empathy that needs to be taught first in order to prevent bullying. Why teach a skill that already exists? Instead, we may need to focus on getting bullies – as well as victims and bully/victims – to empathize with specific peers for whom they initially have less empathy than for others.

In order to boost children's low levels of empathy for specific peers it is important to know why they have less empathy for them. The reasons to empathize less with specific others involved in bullying may differ for bullies and victims. Bullies may have low levels of empathy for victims and bully/victims because this allows them to continue to aggress against them without negative emotions such as guilt or remorse. This does not apply to victims as they do not initiate the aggression. The process underlying victims' reduced empathy is more likely to be a difficulty or unwillingness to understand and experience the emotions of those who hurt others like them.

This study also demonstrated that having been in a peer's position does not guarantee high empathy for her or him. Specifically, bully/victims did not report high levels of empathy for bullies and for victims. To the contrary, they reported less empathy for bullies and victims than for noninvolved children. It is possible that the empathy that might be induced by having been in the same position as a peer is overruled by the negative attitude toward that peer. Previous research has shown that bully/victims stand out in terms of blame attribution, anger, and willingness to retaliate in response to an ambiguous aggressive situation (Camodeca, Goossens, Schuengel, & Terwogt, 2003). It could be that bully/victims see the behavior of both victims and bullies in bullying situations as malicious and a threat, and therefore disengage from empathizing with them.

Noninvolved children did not differentiate between bullies, victims, and bully/victims in cognitive or affective empathy. This lack of differentiation may indicate that children who do not bully and are not bullied have a certain level of empathy for all others to the same extent, meaning that their empathy is not dependent on the bullying involvement of the peer. It is possible that noninvolved children do not differentiate between others because they have no negative relationships with them. However, comparisons were made between bullies, victims, and bully/victims and not with other noninvolved children. Therefore, we cannot rule out the possibility that noninvolved children have less empathy for involved targets compared to noninvolved targets, just like involved children do. This could partly explain why noninvolved children did not have the highest levels of total cognitive and affective empathy (see Table 4.2).

The gender of the child and the target also played a role in the association between bullying involvement and empathy. For the effects of the gender of the participant and the target, we replicated Bryant's (1982) findings that girls reported more cognitive and affective empathy for other girls than for boys, whereas boys do not differentiate between girls and boys for either cognitive or affective empathy. In addition, victims reported less cognitive and affective empathy for peers who are bully/victims and for boy bullies than for noninvolved peers. Girl bully/victims reported less cognitive empathy for girl victims, whereas boy bully/victims reported less cognitive empathy for girl bullies than for noninvolved girls. Although both boys and girls are bully/victims, this does not necessarily mean that boy bully/victims and girl bully/victims are bullying the same classmates and are being victimized by the same classmates. That is, girl bully/victims may particularly bully girls but may not be bullied by other girls so much, whereas boy bully/victims may be bullied by girls rather than bullying girls themselves.

Limitations and Future Research

When interpreting the findings of this study we must keep in mind that our bullying involvement classification was based on classroom peer reports. Therefore, the findings of the present study represent group processes rather than dyadic processes, indicating the one's empathy for another person is associated with how this person is viewed by the group. By selecting specific bully-victim dyads, future research could investigate empathy toward children's own bullies and/or victims.

Other aspects of the relationship between child and target that we did not control for are friendship and popularity. Both may influence the empathy a child feels for a peer. In addition to these relational factors, future research may also focus on contextual factors of empathy. For example, a child might experience more empathy for a peer when the peer's distress is caused by a tragic loss than when it is caused by victimization.

Furthermore, in line with previous research on group differences in empathy (Espelage et al., 2004; Raskauskas et al., 2010; Williford et al., 2014), we identified the noninvolved group as children who were not involved in bullying or victimization. However, this group is not necessarily homogeneous. The noninvolved group may include outsiders who do nothing or are not even aware of the bullying, but may also include defenders who help victims (e.g., Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). Previous research has established positive associations between defending and empathy, whereas the association between bystanding and empathy remains unclear (van Noorden et al., 2015). Therefore, subdividing the group of noninvolved children may provide additional insight in associations with empathy that may aid the prevention and intervention of bullying.

In the present investigation, empathy for peers in one's own bullying role could not be tested as only one girl and one boy were selected for each bullying role in each classroom. Target differences were therefore always tested between bullying roles other than the child's own. As mentioned, this may partly explain why noninvolved children did not have the highest levels of overall cognitive and affective empathy. This also may have contributed to the lack of differences between the bullying roles in their empathy toward their selected classmates in general. A larger study with two boys and girls from each bullying role technically would make it possible to test children's empathy toward peers in their own role. But this may not be an ideal solution, as given the prevalence of bullies, victims, and bully/victims as reported in previous research, it is not very likely that all classrooms actually have two boys and two girls who show the behavior associated with each bullying role. Such a design would increase variation in the consensus on who the bullies and the victims are. That is, the first ranked bully in one classroom may have been nominated by a much larger proportion of classroom peers than the first ranked bully in another classroom. To facilitate that at least one girl and one boy could be identified in the present study, we asked children to name at least one girl and one boy for the bullying and victimization items. This means that less extreme cases may have been identified, which may have made our group comparisons more conservative. This phenomenon would only be more extreme when using a design that requires four targets for each bullying role per classroom. Before making decisions about the optimal design for a new study, perhaps careful simulations should be conducted first to understand exactly how these processes might work and influence group comparisons.

Further, our cognitive empathy measures were somewhat less reliable than our affective empathy measures. The alphas of the empathy measure for the four target roles ranged from .67 to .69 for cognitive empathy and from .76 to .83 for affective empathy. Future studies may want to include additional items or other empathy measures to increase the reliability of the cognitive empathy measure.

Finally, this was a correlational study with a cross-sectional design. Although some directional effects are more likely than others, we cannot draw conclusions about causal relationships. Future longitudinal research may investigate developmental trajectories of children's empathy, while taking the bullying involvement and gender of both the child and the target into account.

Conclusion

This study demonstrated how the association between bullying involvement and empathy varies depending on characteristics of the child as well as the target. We often think that variations in empathy are due to individual differences, but the findings of the present study indicate that these variations are especially due to target differences. Specifically, bullies, victims, and bully/victims showed less empathy for each other than for noninvolved peers. This has implications for research on bullying and empathy that has so far primarily focused on child characteristics. Moreover, it has implications for bullying prevention and intervention programs that include training of empathy skills for bullies. Such programs may want to focus on reducing empathy differences between targets, thereby hopefully enhancing empathy toward those peers for whom bullies, victims, and bully/victims initially have low empathy.

PART 2

Bullying Involvement and Human Characteristics Attribution

"The greatness of humanity is not in being human, but in being humane."
~ Mahatma Ghandi

Chapter 5

Dehumanization in Children: The Link with Moral Disengagement in Bullying and Victimization

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2014). Dehumanization in children: The link with moral disengagement in bullying and victimization. *Aggressive Behavior, 40,* 320-328. doi: 10.1002/ab.21522

ABSTRACT

The current study explored subtle dehumanization – the denial of full humanness – in children, using distinctions of forms (i.e., animalistic versus mechanistic) and social targets (i.e., friends versus nonfriends). In addition, the link between dehumanization and moral disengagement in bullying and victimization was investigated. Participants were 800 children (7-12 years old) from third to fifth grade classrooms. Subtle animalistic and mechanistic dehumanization towards friends and nonfriends were measured with the new Juvenile Dehumanization Measure (JDM). Results showed that animalistic dehumanization was more common than mechanistic dehumanization and that nonfriends were dehumanized more than friends. The highest levels of dehumanization were found in animalistic form towards nonfriends and the lowest levels in mechanistic form towards friends. Both moral disengagement and animalistic dehumanization towards friends were positively associated with bullying. However, moral disengagement was negatively associated with victimization, whereas both animalistic and mechanistic dehumanization towards nonfriends were positively associated with victimization. The current findings indicate that children are able to distinguish different forms and targets of dehumanization and that dehumanization plays a distinct role from moral disengagement in bullying and victimization.

Although all people are human by definition, humanness is not ascribed to the same degree to everyone. When thinking of dehumanization – the denial of full humanness to others – extreme examples easily spring to mind, such as the genocide of Jews during the Second World War. More subtle forms of dehumanization, rooted in ordinary social-cognitive processes, are less obvious. Perhaps relatively innocent compared to genocide, social exclusion nevertheless is an example of dehumanization as the excluded person is denied full participation in a social milieu (Bastian & Haslam, 2010). This active denial of a person's basic existence and the treatment of a person as lower in status can be considered dehumanizing (Bastian & Haslam, 2011). Dehumanization occurs within different domains (e.g., medicine, technology, ethnicity and race) and in both intergroup and interpersonal contexts (see, for a review, Haslam, 2006). Dehumanization is associated with reduced activation in the medial prefrontal cortex – a brain area involved in attributing mental states to others (Harris & Fiske, 2006, 2009), and may be facilitated by status (Capozza, Andrighetto, Di Bernardo, & Falvo, 2012) and social connectedness (Waytz & Epley, 2012).

A basic premise of theory and research in dehumanization is that it is a fundamental construct in the sense that when a person is dehumanized the person can be treated with less moral concern (Kelman, 1973). Bandura and colleagues (1996) identified dehumanization as one of the eight mechanisms of moral disengagement; the other seven being moral justification, euphemistic labeling, advantageous comparison, displacement of responsibility, diffusion of responsibility, distorting the consequences, and blaming the victim. Bandura theorized that people refrain from inhumane conduct because of self-sanctions for acting against their beliefs. However, when immoral behavior is justified through the mechanisms of moral disengagement, this cognitive dissonance is minimized and immoral behavior becomes acceptable to the self. Accordingly, moral disengagement is defined as the social-cognitive processes that enable ordinary people to commit negative actions against others. Regardless of whether these acts are subtle or extreme, they are violations of moral principles. Despite the original conceptualization of moral disengagement as a multidimensional construct, it is often treated as single entity (Bandura et al., 1996; Pelton, Gound, Forehand, & Brody, 2004), with dehumanization included in it.

Recent research has distinguished between animalistic and mechanistic dehumanization (Haslam, 2006; Haslam, Bain, Douge, Lee, & Bastian, 2005; Haslam, Loughnan, Kashima, & Bain, 2008; Loughnan & Haslam, 2007). This distinction can be approached in two ways (Loughnan, Haslam, & Kashima, 2009). One approach, known as metaphor-based dehumanization, consists of the likening of others to non-humans and often involves explicit comparisons with animals (i.e., animalistic dehumanization) or machines (i.e., mechanistic dehumanization). The other approach, known as attribute-based dehumanization, focuses on the denial of human characteristics. That is, animalistic dehumanization is the denial of uniquely human characteristics to another person (i.e., the characteristics that separate

humans from animals and involve refinement, civility, morality, rationality, and maturity); mechanistic dehumanization is the denial of human nature characteristics to another person (i.e., the characteristics that separate humans from machines and involve emotion, warmth, openness, agency, and depth). The focus on the denial of characteristics, rather than the likening to non-humans, is more subtle and has been the more common approach within research on dehumanization. Denying human characteristics to another person can take two forms: 1) literally denying/not ascribing a human characteristic (e.g., say that the other person *is not cognitively open*), or 2) ascribing the direct opposite characteristic of that particular human characteristic (e.g., say that the other person *is rigid*).

In studies using adult judges, uniquely human emotions and uniquely human characteristics – relevant to animalistic dehumanization – were perceived to 'emerge in late development' (Demoulin et al., 2004; Haslam et al., 2005), whereas human nature characteristics – relevant to mechanistic dehumanization – were judged to 'emerge in early development' (Haslam et al., 2005). In spite of this conceptualization, the development of dehumanization has actually received very little attention in empirical research. The few studies in which dehumanization has been explored in children have focused mainly on infrahumanization (Leyens et al., 2000), in which the social target of dehumanization is of interest. Research on infrahumanization in adults has typically found that ingroups are seen as more human than outgroups in terms of uniquely human emotions (Leyens et al., 2001; Paladino et al., 2002) and uniquely human characteristics (Viki, Winchester, Titshall, & Chisango, 2006). Children also have been found to dehumanize outgroups more than ingroups, based on uniquely human emotions (Brown, Eller, Leeds, & Stace, 2007; Costello & Hodson, 2014; Martin, Bennett, & Murray, 2008; Vezzali, Capozza, Stathi, & Giovanni, 2012) and uniquely human characteristics (Costello & Hodson, 2014). These studies do not seem to indicate many differences between children and adults. Also, they have focused primarily on the components of animalistic dehumanization: uniquely human characteristics and uniquely human emotions. To our knowledge, no study with children has investigated dehumanization based on the basic characteristics of human nature, leaving mechanistic dehumanization in children unexplored.

Apart from a small number of studies on intergroup comparisons, only one other study has addressed dehumanization in children. Pozzoli, Gini, and Vieno (2012) investigated the association between dehumanization and pro-bullying and found a positive relationship indicating that children who are bullies, reinforcers of bullies, or assistants of bullies are more likely than their peers to see others as less human. They reported that dehumanization did not predict pro-bullying after controlling for the other moral disengagement mechanisms. However, their measure of dehumanization was confounded with victim blaming (one of the seven other moral disengagement mechanisms), making it impossible to determine the extent to which bullying is uniquely associated with dehumanization. Further, no attention

was given to the target or form of dehumanization. Although Pozzoli and colleagues assessed pro-bullying, combining ringleader bullying with assisting the bully and reinforcing the bully, it might be even more informative to focus on ringleader bullying instead. An equally interesting topic topic, but so far unexplored with respect to dehumanization, is the other side of the bullying coin: victimization. Accordingly, there is currently no knowledge of the associations of bullying or victimization with animalistic and mechanistic dehumanization and how these associations might vary for different social targets.

Although the link between dehumanization and victimization in children has not been tested directly, insight in this association might be deduced from Bastian and Haslam (2010)'s finding that people see others as less human after having been socially excluded. In their study, these people attributed fewer human nature characteristics to others after they had been excluded instead of included. Thus, mechanistic dehumanization follows exclusion. Furthermore, people – surprisingly – attributed *more* uniquely human characteristics (i.e., less animalistic dehumanization) to others after being excluded than after being included. This latter finding was explained in terms of status: When people are excluded or disdained by others they may perceive the others' status as higher than their own. With status being reflected in uniquely human characteristics rather than in human nature characteristics, this explanation only holds for animalistic dehumanization. Furthermore, this finding also holds only for attributions about the excluders, and not necessarily about others.

The current study examined subtle dehumanization in children with the specification of form and target, its association with moral disengagement in general, and its association with moral disengagement in bullying and victimization specifically. Animalistic and mechanistic dehumanization towards friends and nonfriends, moral disengagement, and bullying and victimization were measured (using multiple informants as advised by Juvonen, Nishina, & Graham, 2001; Salmivalli & Peets, 2009).

Based on previous literature indicating that children dehumanize outgroups more than ingroups (Brown et al., 2007; Costello & Hodson, 2014; Martin et al., 2008), we hypothesized that children dehumanize nonfriends more than friends. In the absence of previous studies on mechanistic dehumanization in children, the effect of form of dehumanization (animalistic vs. mechanistic) and the interaction with target were explored in the current study.

With respect to dehumanization and moral disengagement in bullying and victimization, we expected to replicate previous findings that moral disengagement is positively associated with bullying and negatively with victimization (Almeida, Correia, & Marinho, 2010; Hymel, Rocke-Henderson, & Bonanno, 2005; Menesini et al., 2003; Obermann, 2011). Consistent with Pozzoli et al. (2012), we expected – all four combinations of the form and target of – dehumanization to be positively associated with bullying. Based on Bastian and Haslam (2010), we expected mechanistic dehumanization to be positively associated and animalistic dehumanization to be negatively associated with victimization.

Finally, considering the differences between boys and girls in both bullying behavior (e.g., Olweus, 1991) and moral disengagement (e.g., Almeida et al., 2010; Bandura et al., 1996), the role of gender was taken into account in our analyses. In general, we expected higher levels of dehumanization, moral disengagement and bullying in boys than in girls. We did not expect gender differences in victimization (e.g., Fekkes, Pijpers, & Verloove-Vanhorick, 2005).

METHOD

Participants

The potential sample consisted of a pool of 838 children recruited from 34 third to fifth grade classrooms in 11 elementary schools in The Netherlands. School principals and teachers agreed to participate in the study. As approved by the ethical review committee at the first author's home institution, parents were informed about the nature and procedure of the study with a letter and could indicate if they did not want their child to participate. Only nine children did not receive parental permission; no children objected to participation themselves or stopped during the study. Twenty-seven children were absent during data collection and two children had moved to a different school. This resulted in a final sample of 800 children (50.5% boys) aged between 7 and 12 years (M = 10.01, SD = 1.01). This sample was predominantly Caucasian, with 776 children (97.0%) born in The Netherlands. Children received a small gift and teachers received a €10 voucher as a token of our appreciation.

Procedure

All children in each classroom completed the questionnaires simultaneously on individual 10" inch netbook computers (for a comparison of computerized and paper-and-pencil questionnaires, see Van den Berg & Cillessen, 2013). They sat at separate desks with partition boards on both sides to prevent them from looking at each other's screens. To further enhance privacy, it was emphasized verbally that the partition boards marked children's own personal space and that the data would be processed anonymously. We indicated that there were no right or wrong answers and that we were interested in children's opinions. The nature of the study was explained and the definitions of the main constructs were discussed interactively. Children were not allowed to talk to each other during the data collection, but they could ask the researchers questions at any time. To minimize missing data due to accidentally skipped questions, the questionnaire was programmed to prevent participants from leaving a question unanswered. For certain questions within the sociometric measure (e.g., bullying) participants could indicate they did not want to name anyone, which was considered a valid answer.

Measures

Dehumanization. A new dehumanization measure was developed to assess subtle animalistic and mechanistic attribute-based dehumanization in children towards different targets. In this Juvenile Dehumanization Measure (JDM), children were shown pictures with four planets or stars (see Figure 5.1 for two examples). They were asked to imagine other children of their own age living on these planets and stars. As shown in Table 5.1, the planet profiles consisted of three uniquely human characteristics (humble, thorough, polite), measuring animalistic dehumanization; the star profiles consisted of three human nature characteristics (trusting, friendly, sociable), measuring mechanistic dehumanization (characteristics adopted from Haslam et al., 2005; Haslam, Bastian, & Bissett, 2004; Loughnan & Haslam, 2007). The content of the planets and stars ranged from attributing all three aspects of humanness to a peer to denying all three aspects of humanness to a peer, thereby representing a 4-point scale that increased in animalistic or mechanistic dehumanization. Children were asked to state on which planet and on which star: 1) their friends, and 2) nonfriends, would live if Earth did not exist by indicating which planet/star described them best. Thus, the JDM included four dehumanization submeasures, each measuring a different combination of form and target of dehumanization: animalistic towards friends, animalistic towards nonfriends, mechanistic towards friends, and mechanistic towards nonfriends.

Moral disengagement. Moral disengagement regarding bullying behavior was measured with a Dutch translation of Almeida et al.'s (2010) 15-item version of the Moral Disengagement Scale (MDS; Hymel et al., 2005). The MDS consisted of statements such as "Sometimes it is okay to bully other people" and "Getting bullied helps to make people tougher". Participants responded to the statements on a 4-point scale (1 = completely disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = completely agree). In accordance with Hymel et al. (2005) and Almeida et al. (2010), a single composite measure of moral disengagement was computed as the mean of the items that loaded significantly on a single principal component. The retained 13 items loaded at least .50 on this factor ($\alpha = 0.84$), which accounted for 32% of the variance.

Bullying and victimization. Combining definitions by Olweus (1993) and Salmivalli (2010), we defined bullying as a subtype of aggressive behavior, in which an individual or group of individuals attacks, humiliates, and/or excludes a relatively powerless person repeatedly and over time, with forms of bullying being physical, verbal, relational (gossip and social exclusion), and cyber bullying. Victimization was defined as being a victim of bullying.

Bullying and victimization were assessed with four sociometric questions that used a peer nomination format. The first two questions concerned peer descriptions ("Who in your classroom bullies others?" and "Who in your classroom is bullied by others?"), whereas the

second two concerned self descriptions ("Who in your classroom have you bullied?" and "Who in your classroom has bullied you?"). For these questions, the classroom and the current academic year were the references. Children could nominate none up to all of their classmates. The names of the classmates were presented on the screen in randomized order between participants and a fixed order within participants. To prevent self-nominations, the participant's own name was not included in the participant's roster. For the peer-description questions nominations received were counted; for the self-description questions nominations given were counted. These scores were standardized within classrooms to control for differences in classroom size (Coie, Dodge, & Coppotelli, 1982).

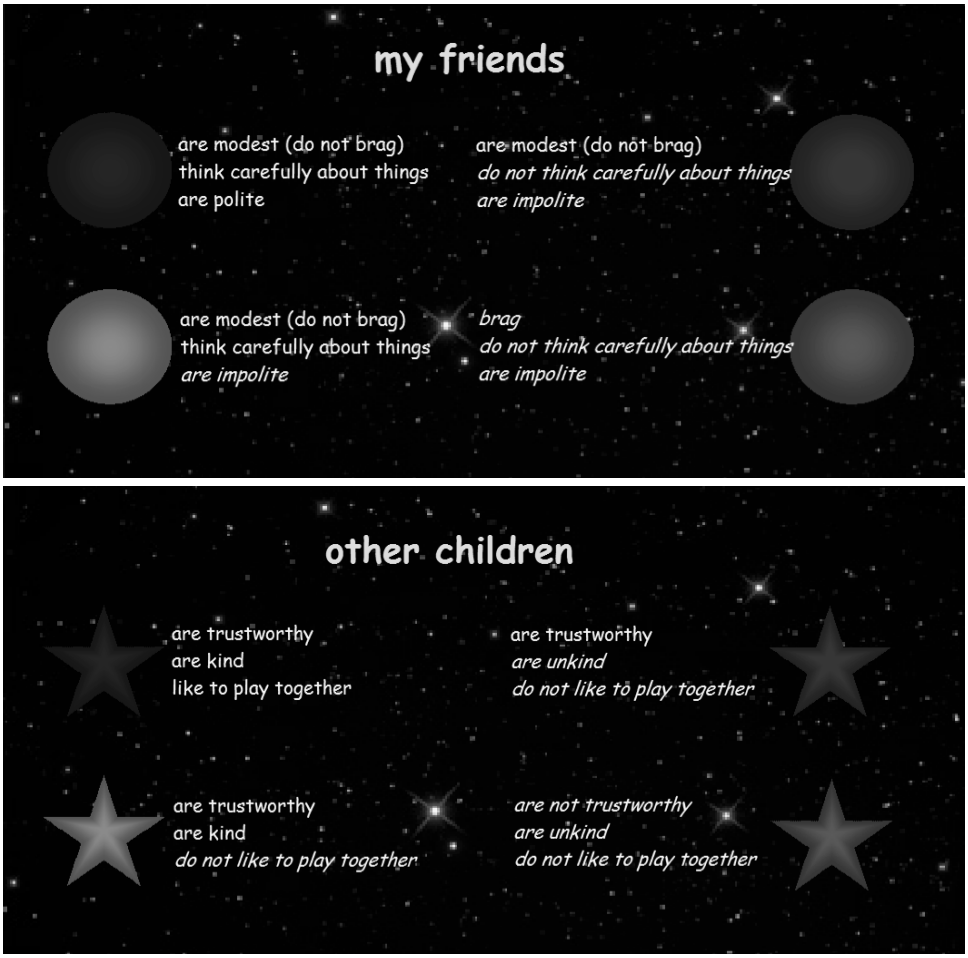

Figure 5.1. Examples of the Juvenile Dehumanization Measure items. Upper panel presents animalistic dehumanization towards friends; lower panel presents mechanistic dehumanization towards nonfriends. Pictures were presented in color to the children.

Table 5.1 *Characteristics and Items as a Function of Humanness and Form of Dehumanization*

Humanness / Form of Dehumanization	Charactistics	Items
Human Uniqueness /	Humble	… are modest (do not brag)
Animalistic Dehumanization	Thorough	… think carefully about things
	Polite	… are polite
Human Nature /	Trusting	… are trustworthy
Mechanistic Dehumanization	Friendly	… are kind
	Sociable	… like to play together

RESULTS

Form and Target of Dehumanization

Using the scores from the JDM, we investigated the occurrence of the form and target of dehumanization in a 2 (Form: animalistic, mechanistic) x 2 (Target: friends, nonfriends) x 2 (Gender: boy, girl) repeated measures ANOVA with target and form as within-subjects factors and gender as a between-subjects factor. The analysis revealed a main effect of gender, $F(1, 789) = 4.60$, $p = .032$, $\eta^2_{partial} = .006$. In general, boys ($M = 1.81$, $SD = 0.79$) scored higher on dehumanization than girls ($M = 1.73$, $SD = 0.82$). There were no significant interactions of gender with any of the other factors. Therefore, gender was not included in Table 5.2, presenting the means and standard deviations of the within subject factors of the ANOVA (i.e., the different forms and targets of dehumanization).

The analysis also yielded a main effect of form, $F(1, 789) = 177.78$, $p < .001$, $\eta^2_{partial} = .18$. Animalistic dehumanization was more common than mechanistic dehumanization. In other words, children dehumanized more in terms of uniquely human characteristics such as humbleness, thoroughness, and politeness, than in terms of human nature characteristics such as trustworthiness, friendliness, and sociability. There was also a main effect of target, $F(1, 789) = 480.73$, $p < .001$, $\eta^2_{partial} = .38$. Friends were dehumanized less than nonfriends.

Table 5.2 *Means and Standard Deviations for Dehumanization Scores by Form and Target*

		Form		
		Animalistic	Mechanistic	Total
Target	Friend	1.56 (0.97)	1.14 (0.53)	1.35 (0.59)
	Nonfriend	2.34 (1.17)	2.05 (1.10)	2.20 (0.96)
	Total	1.95 (0.74)	1.59 (0.62)	

Note. Standard deviations are in parentheses. All means differed significantly from each other ($p < .05$).

Furthermore, the interaction between target and form was significant, $F(1, 789) = 4.71$, $p = .030$, $\eta^2_{partial} = .006$. Dehumanization was highest in animalistic form towards nonfriends and lowest in mechanistic form towards friends. The interaction was caused by a larger difference between animalistic and mechanistic dehumanization towards friends (*diff* = 0.42) than between animalistic and mechanistic dehumanization towards nonfriends (*diff* = 0.29).

Dehumanization and Moral Disengagement in Bullying and Victimization

Table 5.3 presents the correlations between all study variables by gender. This was done because of the gender differences found in the overall scores on dehumanization – as described in the previous section – and moral disengagement, with boys ($M = 1.83$, $SD = 0.51$) showing more moral disengagement than girls ($M = 1.68$, $SD = 0.50$), $t(789) = 4.23$, $p < .001$, $r = .15$. Overall, the associations between moral disengagement and the four dehumanization combinations were expressed in small positive correlations.

Table 5.3 *Correlations Among Study Variables by Gender*

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Moral Disengagement	--	.15**	.19***	.14**	.17***	.17***	.16**	-.09	.03
2. Animalistic Friend	.08	--	-.10*	.19***	.03	.12*	.17***	-.10	.07
3. Animalistic Nonfriend	.13**	.03	--	.03	.39***	.04	-.02	.11*	.20***
4. Mechanistic Friend	.13**	.18***	.08	--	.07	.04	-.01	-.04	.04
5. Mechanistic Nonfriend	.12*	.13**	.44***	.03	--	.06	.04	.14**	.12*
6. Bullying (Peer-Description)	.04	.02	.08	.04	.05	--	.36***	.15**	.04
7. Bullying (Self-Description)	.18***	.07	-.02	.06	-.06	.17***	--	.01	.11*
8. Victimization (Peer-Description)	-.07	.02	.14**	.07	.11*	.25***	-.03	--	.30***
9. Victimization (Self-Description)	.08	.05	.18***	.12*	.23***	.05	.15**	.16***	--

Note. Correlations above the diagonal are for boys ($n = 404$), below the diagonal for girls ($n = 396$).
* $p < .05$. ** $p < .01$. *** $p < .001$.

To investigate the role of dehumanization, specifying the target and form, in the association of moral disengagement with bullying and victimization, four separate but identical regressions were run on the peer and self-descriptions of bullying and victimization on moral disengagement and the four combinations of dehumanization. In Step 1, gender was entered (dummy coded; 0 = boy, 1 = girl). The four dehumanization combinations and moral disengagement were entered in Step 2. In Step 3, the interactions of moral disengagement and dehumanization with gender were entered. Results of these four regression analyses are summarized in Table 5.4.

Table 5.4 *Results for the Regression of Bullying and Victimization on Moral Disengagement, Gender, and the Four Combinations of Dehumanization Using Peer-Descriptions and Self-Descriptions*

	Bullying						Victimization					
	Peer-Description			Self-Description			Peer-Description			Self-Description		
	ΔR^2	*B*	β	ΔR^2	*B*	β	ΔR^2	*B*	β	ΔR^2	*B*	β
Step 1	.08***			.02***			<.01			<.01		
Gender		-.53	-.27***		-.25	-.13***		-.08	-.04		.03	.02
Step 2	.02**			.04***			.04***			.05***		
MD		.19	.10**		.33	.17***		-.22	-.11**		<.01	<.01
Anim. Friend		.07	.07*		.12	.11**		-.04	-.04		.05	.05
Anim. Nonfriend		.02	.02		-.03	-.04		.08	.10*		.12	.14***
Mech. Friend		.01	.01		-.05	-.03		.04	.02		.10	.05
Mech. Nonfriend		.02	.03		-.02	-.02		.09	.10**		.09	.10**
Step 3	.01			<.01			<.01			<.01		
Gender × MD		-.32	-.12*		.03	.01		.04	.01		.13	.05
Gender × Anim. Friend		-.10	-.07		-.10	-.05		.07	.04		-.08	-.05
Gender × Anim. Nonfriend		.03	.03		.04	.03		.03	.03		-.10	-.08
Gender × Mech. Friend		.05	.02		.16	.05		.19	.06		.16	.05
Gender × Mech. Nonfriend		-.03	-.02		-.11	-.08		-.07	-.06		.12	.09
Total R^2			.11***			.07***			.04***			.06***

Note. MD = Moral Disengagement. Anim. = Animalistic dehumanization. Mech. = Mechanistic dehumanization.
* $p < .05$. ** $p < .01$. *** $p < .001$.

This table also illustrates similarities and differences between peer and self-descriptions on bullying and victimization. The overall pattern of effects gave us no reason to examine possible description effects. Initial analyses revealed that age did not play a role as either control variable or moderator in our sample, therefore age was dropped from the reported analyses.

Bullying. Step 1 showed an effect of gender, with boys scoring higher than girls on bullying. Step 2 revealed that moral disengagement was positively associated with bullying. Moreover, of the four dehumanization combinations animalistic dehumanization towards friends significantly was positively associated with bullying. The other three dehumanization combinations were not observed to be associated with bullying. In Step 3 gender significantly moderated the association between moral disengagement and bullying (peer-reported only), revealing that this positive association was stronger for boys than for girls.

Victimization. Step 1 showed no gender effect, indicating that boys and girls did not differ in victimization. In Step 2, moral disengagement was observed to be negatively associated with victimization (peer-reported only). Of the four dehumanization combinations, both animalistic and mechanistic dehumanization towards nonfriends were positively associated with victimization. There were no significant interactions with gender in Step 3.

DISCUSSION

The general aim of this study was to investigate children's subtle animalistic and mechanistic attribute-based dehumanization towards both friends and nonfriends. A central feature of this study was the intersection between dehumanization and moral disengagement in bullying and victimization.

As hypothesized, the results revealed that children dehumanized nonfriends more than friends and did this based on uniquely human characteristics (animalistic dehumanization) rather than human nature characteristics (mechanistic dehumanization). Children attributed the least humanness to nonfriends based on uniquely human characteristics and the most humanness to their friends based on human nature characteristics. Our results regarding the *target* also are consistent with previous literature showing that children – animalistically – dehumanize outgroup members more than ingroup members (Brown et al., 2007; Costello & Hodson, 2014; Martin et al., 2008). Whereas these previous studies used hypothetical others from stigmatized and non-stigmatized groups, we used real friends and nonfriends as targets, extending the findings to real world effects. Our results regarding the *form* of dehumanization are in line with the presumed development of the uniquely human and human nature characteristics judged by adults (Haslam et al., 2005). That is, uniquely human characteristics may not yet have been fully developed, which leads children to attribute them

to others to a lesser degree and thus displaying higher levels of animalistic dehumanization than mechanistic dehumanization. However, the difference between animalistic and mechanistic dehumanization may also be caused by a difference in the two scales. Either way, taken together, these findings suggest that children – as young as 7 years old – ascribe uniquely human and human nature characteristics in varying degrees to their friends and nonfriends, indicating that they do not perceive all humans to be equal in humanness.

The ability of children to distinguish different types of targets and different forms of dehumanization is further reflected in the association with bullying and victimization – in line with our hypotheses. More specifically, bullying was positively associated with animalistic dehumanization towards friends, whereas victimization was positively associated with both animalistic and mechanistic dehumanization towards nonfriends. These findings might be explained in terms of the identity of the bullies' friends and the victims' nonfriends. Previous literature found that bullies are friends with bullies and nonbullies with nonbullies (Espelage, Green, & Wasserman, 2007). Therefore, it is quite possible that – other – bullies are both the friends of bullies as well as the nonfriends of victims. This would imply that dehumanization is targeted at bullies, who were judged by other bullies and victims to lack humbleness, thoroughness and politeness, and additionally judged by victims to not be trusting, friendly and sociable. The finding that bullies do not perceive their friends to lack human nature characteristics is probably due to the fact that these characteristics are important elements within friendship.

An interesting pattern of results was found concerning the link between dehumanization and moral disengagement regarding bullying. First, dehumanization and moral disengagement were positively but weakly correlated. In addition, supporting our hypotheses, moral disengagement was *negatively* associated with victimization, whereas dehumanization (towards nonfriends) was *positively* associated with victimization. Our regression analyses also showed that dehumanization explained variance in bullying and victimization, independently from moral disengagement. Together, these findings suggest that dehumanization and moral disengagement are related but distinct constructs. This is in contrast with traditional conceptualizations of moral disengagement that define dehumanization as a specific form of moral disengagement (e.g., Bandura et al., 1996).

As expected, there were no gender differences in victimization, whereas boys did show higher levels of dehumanization, moral disengagement, and bullying than girls. No differences were found in the two forms of dehumanization or in the dehumanization toward friends versus nonfriends. These results indicate that although boys show negative behavior and cognitions to a larger extent than girls, this does not influence the form or target of their dehumanization, or its link with moral disengagement and bullying.

Although no age effects were found in the current study, we would like to stress that these findings do not necessarily mean that age does not play a role in the development of

dehumanization. The absence of finding age effects in the current study may be due to the small range in age of the participants (7- 12 years).

We developed the JDM to assess subtle animalistic and mechanistic attribute-based dehumanization. Compared to pen and paper questionnaires, the JDM is much more attractive for children and suitable for a larger age range. This creates the opportunity to test the development of animalistic and mechanistic dehumanization. Also, the use of profiles allows for a more global approach to dehumanization, rather than the investigation of specific characteristics. At the same time, this might be a disadvantage in the sense that these profiles lack the dynamics of a questionnaire in which each characteristic can be attributed or denied to a specific degree. That is, the profiles are fixed combinations ranging from all attributed to all denied characteristics, with one additional characteristic turning from attributed to denied with each step. It is possible that the specific combination of attributed and denied characteristics that a child wants to select is not provided.

Previous studies have shown that dehumanization goes beyond the valence of the denied characteristics by demonstrating that people deny outgroup members both desirable and undesirable human characteristics more than ingroup members (Brown, Eller, Leeds, & Stace, 2007; Costello & Hodson, 2014; Martin, Bennett, & Murray, 2008; Vezzali, Capozza, Stathi, & Giovanni, 2012). The fact that we only used desirable human characteristics is a limitation of our design. In our design, the human-not human distinction was confounded with a positive-negative distinction. Therefore, we cannot be entirely sure that dehumanization is not simply a choice for more negative characteristics. However, it is unlikely that valence completely accounts for our findings for two reasons. First, the correlation between the two forms of dehumanization was relatively small. If they both measured negativity or dislike, this correlation should be larger. Second, our main evidence came from multiple regressions indicating significant unique effects of each of the four dehumanization measures while controlling for the others. If the four measures only measured one shared underlying characteristic (negative valence) their unique effects would not be significant. Thus, even though humanness and valence were confounded in our analysis, we feel confident that our dehumanization findings cannot be completely explained away by valence. That said, we recommend that future studies should control for this possibility. One option is to include a separate measure of valence so that valence can be covaried out statistically. Another option is to expand the JDM with extra items so that all possible combinations of characteristics (attributed vs. denied x desirable vs. undesirable) are systematically included.

The current study serves as a foundation for future research on dehumanization in children. It will be interesting to explore dehumanization towards specific targets, such as classmates or other familiar individuals, for which the JDM is very suitable. By using the names of identified friends and nonfriends – rather than the category 'friends' and

'nonfriends' – one could investigate who specifically are dehumanized. In addition, it would be possible to measure certain characteristics of these peers, such as their involvement in bullying and victimization. This will make it possible to test the assumption that bullies and victims dehumanize – other – bullies.

Furthermore, whereas the current research focused on bullying and victimization separately, one could also investigate dehumanization in children who are involved in both bullying and victimization at the same time (bully/victims). Based on the idea that bullying is a group process involving different roles in relation to the bullies and victim (e.g., reinforcer of the bully, assistant of the bully, defender of the victim, outsider; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996), it is also possible to take other roles in bullying involvement into account when investigating dehumanization. Although the current study assessed general bullying and victimization, one may also be interested in assessing specific forms of bullying and victimization (e.g., verbal, physical, relational, cyber), using multiple measures. Another possibility for future research would be to investigate dehumanization in different contexts to explore dehumanization in children beyond friendships. Another, more ambitious option, would be to study dehumanization in children longitudinally in order to investigate causal processes. These studies would provide further insight into the role of dehumanization in bullying and victimization and could, in turn, have a valuable influence on bullying and victimization interventions.

Chapter 6

Attribution of Human Characteristics and Bullying Involvement in Childhood: Distinguishing Between Targets

van Noorden, T. H. J., Haselager, G. J. T., Lansu., T. A. M., Cillessen, A. H. N., & Bukowski, W. M. (2015). Attribution of human characteristics and bullying involvement in childhood: Distinguishing between targets. *Aggressive Behavior*. Advance online publication. doi: 10.1002/ab.21634

ABSTRACT

This investigation aimed to provide further insight into the association between the attribution of human characteristics and bullying involvement in children by distinguishing between targets. Study 1 focused on the attribution of human characteristics by bullies, victims, bully/victims, and noninvolved children toward friends and nonfriends. The data from 405 children (M = 10.7 years old) showed that they attributed fewer prosocial and more antisocial human characteristics to nonfriends than to friends. Moreover, boy victims attributed fewer prosocial human characteristics to nonfriends than boy bullies and noninvolved boys did. In addition, victims attributed more antisocial human characteristics to nonfriends than noninvolved children did. Study 2 addressed bullies', victims', bully/victims', and noninvolved children's attribution of human characteristics to each other. The data of 264 children (M = 10.0 years old) showed that bullies, victims, and bully/victims attributed fewer prosocial and more antisocial human characteristics to each other than to noninvolved children. Noninvolved children attributed fewer prosocial human characteristics to bully/victims than to bullies and victims, and more antisocial human characteristics to bully/victims than to victims. In addition, girls attributed more prosocial and fewer antisocial human characteristics to girls than to boys, whereas boys did not distinguish between girls and boys. Based on these findings, suggestions for future research are provided and implications for bullying prevention and intervention are discussed.

Although all people are human by definition, we do not attribute human characteristics to all others to the same degree (e.g., Leyens et al., 2001). Attributing human characteristics to others to a lesser extent has been associated with higher levels of aggression toward these others (Bandura, Underwood, & Fromson, 1975; Castano & Giner-Sorolla, 2006). A recent study showed that children who were involved in aggression – in the form of bullying – displayed less attribution of human characteristics to others (van Noorden, Haselager, Cillessen, & Bukowski, 2014). Moreover, this association depended on the target of the attributions, whether they were friends or nonfriends. The present investigation expands previous research on the association between the attribution of human characteristics and aggression in children by focusing on the target's, as well as their own, involvement in bullying.

Human characteristics may be assigned to one of two types of humanness: human uniqueness and human nature (Haslam, 2006). Uniquely human characteristics distinguish us from animals and deal with civility, refinement, moral sensibility, rationality or logic, and maturity. Secondary emotions, such as hope, admiration, shame, and guilt are also seen as uniquely human characteristics (e.g., Leyens et al., 2001). Human nature characteristics distinguish us from machines and focus on emotional responsiveness, interpersonal warmth, cognitive openness, agency or individuality, and depth. The attribution of these human characteristics can either take place in absolute terms with characteristics being attributed or denied, or in relative terms with characteristics being attributed to a larger or lesser extent (Haslam & Loughnan, 2014).

The majority of research on the attribution of human characteristics has focused on attributions to ingroup versus outgroup members, indicating that people distinguish between targets based on characteristics of the target. A consistent finding across these studies is that people attribute more human characteristics to ingroup members than to outgroup members (see Haslam & Loughnan, 2014; Leyens et al., 2003; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007), explicitly as well as implicitly (Loughnan & Haslam, 2007; Paladino et al., 2002). This has been found for ethnic outgroups such as Italians (versus Americans; Vaes & Paladino, 2010); racial outgroups such as 'Blacks' (Costello & Hodson, 2014) and Asians (Bain, Park, Kwok, & Haslam, 2009); and other stereotyped outgroups such as criminals, artists, elderly (Loughnan & Haslam, 2007), and immigrants (Hodson & Costello, 2007). In these studies, the difference in attribution to ingroup and outgroup members could not be explained by ingroup favoritism as it occurred independently of the valence of the attributed characteristics: both desirable and undesirable human characteristics were attributed to outgroup members to a lesser extent (e.g., Leyens et al., 2001). This denial of both desirable and undesirable human characteristics to others – either absolutely or relatively – is called dehumanization (e.g., Haslam, 2006).

Although the attribution of human characteristics plays a role in daily social cognition (e.g., Bastian & Haslam, 2011), little is known about its emergence and development. The few available studies on the attribution of human characteristics by children and adolescents focus on the attribution of uniquely human characteristics to ingroup and outgroup members. For example, Brown et al. (2007) found that 11-16 year-olds attributed more secondary emotions (positive, not negative) to students from their own school than to students from a different school. The study by Vezzali, Capozza, Stathi, and Giovannini (2012) found that fourth-graders attributed fewer uniquely human characteristics than non-uniquely human characteristics to a unknown immigrant child. Similarly, Costello and Hodson (2014) found that Caucasian 6-10 year-olds attributed fewer secondary emotions and other uniquely human characteristics to African-American children than to Caucasian children. Exploring age differences, Martin, Bennett, and Murray (2008) found that 6-7 year-olds as well as 10-11 year-olds attributed more secondary emotions to their National soccer team than to the opposing soccer team. Recently, we (van Noorden et al., 2014) investigated human nature characteristics in addition to uniquely human characteristics and found that 7-12 year-olds attributed both more uniquely human and human nature characteristics to their friends than to their nonfriends.

The attribution of human characteristics has been linked to aggression in a study by Castano and Giner-Sorolla (2006), who found that people attributed fewer human characteristics to outgroup members when they believed that members of their ingroup were responsible for the death of these outgroup members. In addition to a consequence of aggression, the decreased attribution of human characteristics may also be a cause of aggression. For example, Bandura et al. (1975) found that labeling someone as lacking certain human characteristics led people to act more aggressively to this person than to someone labeled as possessing human characteristics. The overall association between the attribution of human characteristics and one's aggression may be linked to morality. For example, Kelman (1973) argued that people who are not seen as fully human are likely to be treated with less moral concern. Relatedly, Bandura, Barbaranelli, and Caprara (1996) identified the denial of full humanness to another person as a moral disengagement strategy that is used to justify one's own antisocial behavior towards this person. It has also been posited that the perception of a person as lacking human nature characteristics - such as depth and emotions - is associated with the inability to empathize with him or her (Haslam, 2006) and that perceiving a person as fully human requires empathy (Halpern & Weinstein, 2004).

The negative association between the attribution of human characteristics and aggression also has been demonstrated among children. Specifically, children's attribution of uniquely human characteristics to friends was negatively associated with their bullying, whereas children's attribution of both uniquely human characteristics and human nature

characteristics to nonfriends was negatively associated with their victimization (van Noorden et al., 2014). These results were obtained by presenting profiles consisting of three desirable uniquely human characteristics (humble, thorough, polite) or three desirable human nature characteristics (trusting, friendly, sociable). The three human characteristics were presented in fixed combinations ranging from all being attributed to all being denied. The relative attribution of desirable and undesirable nature characteristics in children is unknown.

So far, previous research on individuals' attribution of human characteristics indicates that they distinguish between targets and that their attribution of human characteristics is associated with their own role in aggression. But what about distinctions between targets based on the target's role in aggression? According to moral disengagement theory, the denial of human characteristics enables the person to act aggressively (e.g., Bandura et al., 1996), which suggests that aggressive people attribute fewer human characteristics to victims specifically. A recent study on children's empathy for others revealed that bullies, victims, and bully/victims reported less cognitive and affective empathy for each other than for noninvolved children (van Noorden, Cillessen, Haselager, Lansu, & Bukowski, in press). This demonstrates that the association between bullying and empathy is dependent on both the child's and target's role in bullying. Whether a similar dependency applies to the association between bullying and the attribution of human characteristics has yet to be investigated.

The present investigation researched the association between the attribution of human characteristics and aggression in children by distinguishing between targets. Two studies were conducted as part of a larger project (see van Noorden, Bukowski, Haselager, Lansu, & Cillessen, 2016; van Noorden, Cillessen, et al., in press; van Noorden et al., 2014). In Study 1, we tested whether bullies, victims, bully/victims, and noninvolved children differed from each other in their attribution of human characteristics to friends and nonfriends. The present investigation used a new questionnaire that included desirable as well as undesirable uniquely human and human nature characteristics that could each be attributed to a lesser or larger extent. Given the novelty of the questionnaire, factor analyses were conducted on its items to determine the underlying factor structure in children's responses.

Based on previous findings on the associations of bullying and victimization with the attribution of human characteristics (van Noorden et al., 2014), we expected in Study 1 that 1) in general, children would attribute more human characteristics to friends than to nonfriends; 2) bullies would attribute fewer human characteristics to friends than noninvolved children; 3) victims would attribute fewer human characteristics to nonfriends than noninvolved children.

To investigate the role of the target's aggression, we tested in Study 2 whether children in each bullying role distinguished between targets with bullying roles other than their own.

We based our hypotheses on moral disengagement theory (Bandura et al., 1996), recent findings on the associations of bullying and victimization with the attribution of human characterstics (van Noorden et al., 2014), and recent findings on the differences in empathy between bullies, victims, bully/victims, and noninvolved children (van Noorden, Cillessen, et al., in press). We expected that bullies, victims, and bully/victims would attribute more human characteristics to noninvolved children than to each other. That is, in line with moral disengagement theory (Bandura et al., 1996), seeing others as less human may inhibit or prevent negative self-evaluations or self-sanctions after being aggressive towards these others. We therefore expect bullies to attribute fewer human characteristics to victims and bully/victims compared to noninvolved children. We expect victims to attribute fewer human characteristics to children who engage in bullying (i.e., bullies and bully/victims) than to those who refrain from bullying (i.e., noninvolved children), as it may be less likely for victims to see peers who aggress against others as full human beings. This is in line with the finding that victims attribute fewer human characteristics to nonfriends compared to friends (van Noorden, Cillessen, et al., in press). Building on these hypotheses, bully/victims (i.e. children who both bully and are bullied) are expected to attribute fewer human characteristics to bullies and victims than noninvolved children.

In addition, gender of the child (Study 1 and Study 2) and the target (Study 2) were taken into account. Based on previous research (van Noorden, Cillessen, et al., in press; van Noorden et al., 2014), we expected that girls would attribute more human characteristics to peers than boys would (Study 1), and that girls would attribute more human characteristics to girls than to boys, whereas boys would attribute human characteristics equally to girls and boys (Study 2).

STUDY 1

Method

Participants. As part of a larger project, children from 34 third- to fifth-grade classrooms of 11 elementary schools in The Netherlands were approached for participation. After school principals and teachers agreed to participate, parents were informed of the project in a letter. The study used a passive consent procedure; parents and children could object to participation at all times. This procedure was approved by the ethics committee of the first author's home institution. Study 1 was conducted among a subsample of children from 17 Grade 4 and 5 classrooms. Of these 447 children, parents of two children objected to participation, no children objected themselves or stopped during the study, 16 children were absent, and 24 did not complete all Study 1 measures. Therefore, the final sample of Study 1 consisted of 405 children (50.1% boys) aged between 8 and 12 years (M = 10.65, SD = 0.73), with 389 children (96.0%) born in The Netherlands.

Procedure. The children completed all measures simultaneously on individual laptops. They sat at separate desks in their own classroom with partitioning boards on both sides to prevent them from seeing each other's screens. During the plenary instructions we indicated that we were interested in children's opinions and that there were no right or wrong answers. We told participants that their answers would be processed anonymously and handled confidentially. To ensure that all children knew what bullying and victimization entails, definitions were provided (cf., Olweus, 1996) and discussed. Bullying was defined as a subtype of aggression, in which an individual or group of individuals attacks, humiliates, and/or excludes a relatively powerless person repeatedly and over time, with forms of bullying being physical, verbal, relational (gossip and social exclusion), and cyber bullying (e.g., Olweus, 1993; Salmivalli, 2010). Victimization was defined as being a victim of bullying. During the data collection, children were not allowed to talk to each other but could ask the researchers questions at any time.

Materials

Bullying and victimization were assessed with the questions "Who in your classroom bullies others?" and "Who in your classroom is bullied by others?". Children could nominate none up to all of their classmates. The names of their classmates were presented on the computer screen in a randomized order between participants and a fixed order within participants. To prevent self-nominations, the participant's own name was not included in his or her roster. Nominations received were counted and standardized within classrooms to control for differences in classroom size (Coie, Dodge, & Coppotelli, 1982). Children with bullying scores higher than 1 SD above the classroom mean were classified as bullies; children with a victimization score higher than 1 SD above the classroom mean were classified as victims; children who scored higher than 1 SD above the classroom mean on both bullying and victimization were classified as bully/victims; children who scored lower than 1 SD above the classroom mean on both bullying and victimization were classified as noninvolved children.

The attribution of human characteristics to peers was measured with a questionnaire consisting of ten items. Each item described a specific human characteristic, described in the theoretical and empirical works on uniquely human and human nature characteristics by Haslam et al. (Haslam, 2006; Haslam, Bain, Douge, Lee, & Bastian, 2005). The items were: "My friends/Other children are polite" (polite), "When my friends/Other children want something, they ask for it" (civilized), "My friends/Other children lie" (amoral), "My friends/Other children do things without thinking first" (impulsive), "My friends/Other children behave childish" (childish), "My friends/Other children are friendly" (friendly), "My friends/Other children find the ideas of other children stupid" (rigid/narrow-minded), "My friends/Other children are the first to do new things" (individuality), "My friends/

Other children have a lot of interests/hobbies" (depth), and "When a child is sad, my friends/Other children will try to comfort the child" (emotionally responsive). The first five items represent uniquely human characteristics, whereas the last five items represent human nature characteristics. All ten items were completed twice: once regarding friends and once regarding other – nonfriend – children. Children were asked to indicate to what extent they agreed with each item by clicking on a line on the computer screen. This line represented a visual analogue scale – coded as a 100-point scale to allow a wide range in scores – with as left and right anchors "strongly disagree" [scored as 1] and "strongly agree" [scored as 100].

Table 6.1 *Factor Loadings of the Attribution of Human Characteristics Using Principal Components Analysis with Oblimin Rotation*

Characteristic	Study 1 (N = 405)		Study 2 (N = 264)	
	Prosocial Factor	Antisocial Factor	Prosocial Factor	Antisocial Factor
Emotionally Responsive	.76		.79	
Civilized	.75		.70	
Polite	.65		.72	
Friendly	.61		.68	
Depth	.61		.61	
Impulsive		.79		.82
Amoral		.78		.82
Childish		.77		.82
Rigid/Narrow-minded		.61		.75

Note. Factor loadings < .4 are suppressed.

Data on the item addressing individuality were removed afterwards, because children indicated during the data collection that they had trouble understanding the item. A principal component analysis (PCA) with oblique rotation (direct oblimin) was conducted on the remaining nine items averaged across targets (friends and nonfriends). The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .78, and all KMO values for individual items (i.e., the diagonals on the anti-image correlation matrix) ranged between .74 and .84. Bartlett's test of sphericity, $c^2(36) = 766.34$, $p < .001$, indicated that correlations between items were sufficiently large for PCA. The PCA analysis revealed two factors with eigenvalues over 1, which together explained 51% of the variance. All items loaded at least .4 on one factor, as can be seen in Table 6.1. The item loadings suggested that Factor 1 represents the attribution of prosocial characteristics to friends and nonfriends, and that Factor 2 represents the attribution of antisocial characteristics to friends and

nonfriends. Scale scores were computed by averaging children's ratings on the items that defined each factor, and these scores were computed separately for children's ratings of their friends and nonfriends. The internal consistency of the resulting Prosocial scale was α = .68 for friends and α = .74 for nonfriends; the internal consistency of the Antisocial scale was α = .74 for friends and α = .73 for nonfriends.

Results

To investigate whether girl and boy bullies, victims, bully/victims, and noninvolved children distinguish between targets (i.e., friends and nonfriends) and whether they do this differently from each other, we conducted a 4 (Participant Bullying Role: bully, victim, bully/victim, noninvolved) × 2 (Participant Gender: boy, girl) × 2 (Target Category: friend, nonfriend) ANOVA for the attribution of prosocial and antisocial characteristics separately, with participant bullying role and participant gender as between-subject factors and target category as a within-subject factor. Below, we discuss the significant effects and interactions together with the corresponding post-hoc tests in the form of multiple comparisons with Bonferroni corrections. The means and standard deviations are presented in Table 6.2.

Table 6.2 *Prosocial and Antisocial Characteristics Attribution Means and SDs of Bullies, Victims, Bully/Victims and Noninvolved to Friends and Nonfriends*

	Prosocial Characteristics		Antisocial Characteristics	
	Friends	Nonfriends	Friends	Nonfriends
Girls				
Bullies	76.9 (4.4)	49.9 (22.5)	33.1 (28.5)	51.6 (21.6)
Victims	72.8 (14.8)	52.5 (16.0)	25.1 (20.0)	48.2 (24.9)
Bully/Victims	83.1 (9.0)	73.1 (8.6)	27.4 (28.8)	35.1 (24.8)
Noninvolved	78.9 (14.4)	59.4 (17.0)	24.5 (20.1)	39.9 (19.5)
Boys				
Bullies	73.1 (18.2)	57.2 (19.6)	35.1 (21.2)	45.0 (17.1)
Victims	76.3 (16.1)	43.8 (20.6)	19.3 (21.2)	51.8 (28.4)
Bully/Victims	81.2 (24.2)	48.8 (23.1)	33.4 (25.0)	57.2 (29.6)
Noninvolved	72.7 (15.8)	58.7 (15.7)	31.0 (19.6)	40.8 (19.7)

*Note. SD*s are between brackets.

The analysis on the attribution on prosocial characteristics showed significant main effects of participant bullying role, $F(3, 397) = 2.77$, $p = .041$, $\eta^2_p = .02$, and target category, $F(1, 397) = 99.22$, $p < .001$, $\eta^2_p = .20$. These main effects were further qualified by their two-way interaction, $F(3, 397) = 3.15$, $p = .025$, $\eta^2_p = .02$, as well as by their three-way interaction

with participant gender, $F(3, 397) = 4.01$, $p = .008$, $\eta^2_p = .03$. Post hoc comparisons showed that, although children in general attributed fewer prosocial characteristics to nonfriends ($M = 57.8$, $SD = 17.4$) than to friends ($M = 75.1$, $SD = 15.6$), boy victims attributed fewer prosocial characteristics to nonfriends than boy bullies and noninvolved boys (see Table 6.2). None of the other comparisons yielded significant differences.

The analysis on the attribution of antisocial characteristics showed a significant main effect of target category, $F(3, 397) = 41.49$, $p < .001$, $\eta^2_p = .10$. This effect was further qualified by the interaction with participant bullying role, $F(3, 397) = 4.40$, $p = .005$, $\eta^2_p = .03$. Post hoc comparisons showed that children in general attributed more antisocial characteristics to nonfriends ($M = 41.8$, $SD = 20.5$) than to friends ($M = 27.7$, $SD = 20.5$), and that especially victims attributed more antisocial characteristics to nonfriends ($M = 50.3$, $SD = 26.7$) than noninvolved children did ($M = 40.3$, $SD = 19.6$). None of the other comparisons yielded significant differences.

STUDY 2

The results from Study 1 showed that children perceive their friends as possessing more prosocial human characteristics and fewer antisocial human characteristics than their nonfriends. This finding indicates that the association between the attribution of human characteristics and bullying involvement depends on the target. Moreover, victims made this distinction between friends and nonfriends to a larger extent than bullies, bully/victims, and noninvolved children. Study 2 expanded on the findings of Study 1 by focusing on the target's role in bullying in addition to the child's role in bullying. That is, we investigated the attribution of human characteristics of bullies, victims, bully/victims, and noninvolved children to each other.

Methods

Participants. Eight children from each of the 34 classrooms who participated in the larger project were invited to participate in Study 2. These children were selected based on the number of nominations they received in their entire classroom for the questions "Who in your classroom bullies others?" (bullying) and "Who in your classroom is bullied by others?" (victimization). These nominations had been made for girls and boys separately (in addition to the procedure described in Study 1) and children could answer by nominating from one up to all boys or girls whose names were presented on their screen in a random order. A boy and girl bully (who scored in the highest quartile of total number of bully nominations received and lowest quartile of total number of victim nominations received), a boy and girl victim (who scored in the lowest quartile of total number of bully nominations received and highest quartile of total number of victim nominations received), a boy and girl bully/victim

(who scored in the highest quartile for both bullying and victimization), and a noninvolved boy and girl (who scored in the lowest quartile for both bullying and victimization) were selected for each classroom. If more than one boy or girl met the criteria for a role, the child who fitted the role the best (as defined by the largest number of nominations received for the participant's primary role) was selected.

None of the selected children declined the invitation to participate in Study 2. Data from one classroom were excluded due to extreme disruptions during the data collection. This yielded a final sample of 264 children (132 boys and 132 girls) from 33 classrooms (M_{age} = 10.02, *SD* = 1.00, range 7-12 years).

Procedure. Study 2 took place in a separate room at the participants' schools with all eight children completing the measures simultaneously on individual laptops, separated by partitioning boards. Children were asked to answer questions about the other seven children in their group. Similar to Study 1, we emphasized that the questions concerned personal opinions and that the answers would be processed anonymously and handled confidentially.

Materials. The attribution of human characteristics was measured with the same questionnaire as used in Study 1. The only difference was that children did not complete it separately for friends and nonfriends as general categories, but separately for each of the specific other seven children in their subgroup, identified by their names. An example item is "*Child X* thinks that other children's ideas are stupid".

Identical to Study 1, we conducted a principal component analysis (PCA) on the nine items with oblique rotation (direct oblimin) collapsed across all seven targets. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .85, and all KMO values for individual items (i.e., the diagonals on the anti-image correlation matrix) ranged between .62 and .88. Bartlett's test of sphericity, $c^2(36) = 958.33$, $p < .001$, indicated that correlations between items were sufficiently large for PCA. The analysis revealed two factors with eigenvalues over 1, which together explained 63% of the variance. Table 6.1 shows the factor loadings after rotation, indicating that all items loaded at least .4 on one factor. The item loadings suggested that Factor 1 represents the attribution of prosocial characteristics to bullies, victims, bully/victims, and noninvolved children, and that Factor 2 represents the attribution of antisocial characteristics to bullies, victims, bully/victims, and noninvolved children. Scale scores were computed by averaging children's ratings on the items that defined each factor, and these scores were computed separately for children's ratings of their peers in each bullying role. The internal consistency of the resulting Prosocial scale ranged from $\alpha = .72$ to .79 across the four target bullying roles; the internal consistency of the Antisocial scale ranged from $\alpha = .81$ to .83 across the four target bullying roles.

Results

We tested whether children within each bullying role distinguished between classmates in their attributions of human characteristics to classroom peers based on the peers' bullying role. The effects of participant gender and target gender were also examined. In this design, each participant represented a unique combination of bullying and gender in their group (each combination of bullying involvement and gender occurred exactly once in each group). Because children did not rate themselves, there were no ratings for a target with the same bullying involvement and gender as the child's own, making it impossible to test the effects of the child's bullying role and the target's bullying role in one analysis. Therefore, for each of the four participant bullying role separately, a 3 (Target Bullying Role: the other three bullying roles) × 2 (Target Gender: girl, boy) × 2 (Participant Gender: girl, boy) ANOVA was conducted on the attribution of prosocial and antisocial characteristics separately, with target bullying role and target gender as within-subject factors and participant gender as a between-subject factor. Below, we present the significant effects and interactions together with the corresponding post-hoc tests in the form of multiple comparisons with Bonferroni corrections. The means and standard deviations are presented in Table 6.3.

Table 6.3 *Prosocial and Antisocial Characteristics Attribution Means and SDs of Bullies, Victims, Bully/Victims and Noninvolved for Each Other*

	Target			
	Bullies	Victims	Bully/Victims	Noninvolved
Prosocial Characteristics				
Bullies	/	54.5 (19.3)	48.1 (19.4)	69.0 (18.0)
Victims	51.6 (16.3)	/	51.2 (17.8)	65.5 (15.7)
Bully/Victims	55.8 (17.0)	60.1 (18.5)	/	73.2 (13.2)
Noninvolved	57.8 (16.8)	59.5 (16.2)	52.4 (15.0)	/
Antisocial Characteristics				
Bullies	/	34.2 (21.2)	42.4 (21.2)	23.5 (18.0)
Victims	35.0 (21.2)	/	35.1 (20.5)	19.6 (16.8)
Bully/Victims	41.6 (23.4)	33.4 (21.8)	/	22.7 (18.9)
Noninvolved	33.9 (17.3)	29.4 (18.3)	38.6 (19.4)	/

*Note. SD*s are between brackets.

For bullies, there was a main effect of target bullying role for the attribution of prosocial characteristics, $F(2, 63) = 52.31$, $p < .001$, $\eta^2_p = .62$. Post-hoc comparisons showed that bullies attributed more prosocial characteristics to noninvolved children than to victims and bully/victims, and more prosocial characteristics to victims than to bully/victims (see

Table 6.3). There was also an interaction between target gender and participant gender for the attribution of prosocial characteristics, $F(1, 64) = 22.55$, $p < .001$, $\eta^2_p = .26$. Post-hoc comparisons showed that girl bullies attributed more prosocial characteristics to girls ($M = 60.6$, $SD = 16.2$) than to boys ($M = 48.9$, $SD = 14.8$), whereas boy bullies attributed more prosocial characteristics to boys ($M = 63.6$, $SD = 19.0$) than to girls ($M = 55.7$, $SD = 19.6$). Regarding the attribution of antisocial characteristics, we found a main effect of target bullying role, $F(2, 63) = 24.84$, $p < .001$, $\eta^2_p = .44$. Post hoc comparisons showed that bullies attributed more antisocial characteristics to bully/victims than to victims and noninvolved children, and more antisocial characteristics to victims than to noninvolved children (see Table 6.3).

For victims, there was a main effect of target bullying role for the attribution of prosocial characteristics, $F(2, 63) = 42.85$, $p < .001$, $\eta^2_p = .58$. Post-hoc comparisons showed that victims attributed more prosocial characteristics to noninvolved children than to bullies and bully/victims (see Table 6.3). There was also a main effect of target gender for the attribution of prosocial characteristics, $F(1, 64) = 10.51$, $p = .002$, $\eta^2_p = .14$, that was further qualified by an interaction with participant gender, $F(1, 64) = 5.87$, $p = .018$, $\eta^2_p = .08$. Post-hoc comparisons showed that girl victims attributed more prosocial characteristics to girls ($M = 63.4$, $SD = 15.5$) than to boys ($M = 51.8$, $SD = 15.5$), whereas boy victims did not distinguish between girls and boys. In addition, we found a main effect of bullying on the attribution of antisocial characteristics, $F(2, 63) = 25.99$, $p < .001$, $\eta^2_p = .45$. Post hoc comparisons indicated that victims attributed more antisocial characteristics to bullies and bully/victims than to noninvolved children (see Table 6.3). There was also a main effect of target gender for the attribution of antisocial characteristics, $F(1, 64) = 9.43$, $p = .003$, $\eta^2_p = .13$, with more antisocial attributions to boys ($M = 33.0$, $SD = 18.2$) than to girls ($M = 26.8$, $SD = 18.7$).

For bully/victims, there was a main effect of target bullying role for the attribution of prosocial characteristics, $F(2, 63) = 37.62$, $p < .001$, $\eta^2_p = .54$. Post-hoc comparisons showed that bully/victims attributed more prosocial characteristics to noninvolved children than to bullies and victims (see Table 6.3). The main effect of target gender for the attribution of prosocial characteristics, $F(1, 64) = 6.62$, $p = .012$, $\eta^2_p = .09$, was further qualified by the interaction with participant gender, $F(1, 64) = 23.45$, $p < .001$, $\eta^2_p = .27$. Post hoc comparisons indicated that girl bully/victims attributed more prosocial characteristics to girls ($M = 68.5$, $SD = 14.2$) than to boys ($M = 54.6$, $SD = 13.5$), whereas boy bully/victims did not distinguish between boys and girls. Regarding the attribution of antisocial characteristics, we found a main effect of target bullying role, $F(2, 63) = 26.04$, $p < .001$, $\eta^2_p = .45$. Further inspection showed that bully/victims attributed more antisocial characteristics to bullies than to victims and noninvolved children, and more to victims than to noninvolved children (see Table 6.3).

For noninvolved children, there was a main effect of target bullying role on the attribution of prosocial characteristics, $F(2, 63) = 6.51$, $p = .003$, $\eta^2_p = .17$. Post-hoc comparisons showed that noninvolved children attributed more prosocial characteristics to bullies and victims than to bully/victims (see Table 6.3). The significant main effect of target gender for the attribution of prosocial characteristics, $F(1, 64) = 19.07$, $p < .001$, $\eta^2_p = .23$, was further qualified by an interaction with participant gender, $F(1, 64) = 13.03$, $p = .001$, $\eta^2_p = .17$. Post-hoc comparisons showed that noninvolved girls attributed more prosocial characteristics to girls ($M = 66.9$, $SD = 13.4$) than to boys ($M = 51.1$, $SD = 14.9$), whereas noninvolved boys did not distinguish between girls and boys. Furthermore, we found a main effect of target bullying role for the attribution of antisocial characteristics, $F(2, 63) = 8.47$, $p = .001$, $\eta^2_p = .21$. Post hoc comparisons indicated that noninvolved children attributed more antisocial characteristics to bully/victims than to victims (see Table 6.3). There was also a main effect of target gender for the attribution of antisocial characteristics, $F(1, 64) = 17.46$, $p < .001$, $\eta^2_p = .21$, indicating that noninvolved children attributed more antisocial characteristics to boys ($M = 38.3$, $SD = 17.3$) than to girls ($M = 29.6$, $SD = 17.1$).

In sum, Study 2 found consistent main effects of the target bullying role and target gender on the attribution of prosocial and antisocial characteristics. The exact pattern of effects, however, varied depending on the bullying role and gender of the child.

DISCUSSION

The present investigation researched the association between the attribution of human characteristics and aggression by distinguishing between targets. As this investigation was conducted among children, we focused on the involvement in a specific subtype of aggression that has a major impact on the daily lives of children: bullying. Specifically, we measured the attribution of human characteristics by bullies, victims, bully/victims, and noninvolved children toward friends and nonfriends (Study 1), and toward each other (Study 2). The attributed human characteristics included desirable and undesirable uniquely human and human nature characteristics. As the examination of the factor structure indicated a distinction between the attribution of prosocial and antisocial characteristics, the research questions were tested by analyzing the attribution of prosocial and antisocial characteristics separately.

The results clearly show that children distinguish between targets in the attribution of human characteristics. In line with our expectations, Study 1 found that children attributed more prosocial human characteristics to friends than to nonfriends. In addition, children also attributed fewer antisocial characteristics to friends than to nonfriends. Moreover, we found that this distinction between targets is based on the child's role in bullying. Supporting our hypothesis, boy victims attributed fewer prosocial characteristics to nonfriends than

boy bullies and noninvolved boys did (in line with van Noorden et al., 2014). Victims also attributed more antisocial human characteristics to nonfriends than noninvolved children did. These findings indicate that peers who are not regarded as friends are perceived more negatively by children who are victimized than by children who are not victimized nor bully others. In contrast to our expectations, bullies did not attribute fewer human characteristics to friends than noninvolved children did. The absence of this expected difference might be explained by the distinction between prosocial and antisocial human characteristics. That is, previous research has found a positive association of bullying with the denial of – desirable – uniquely human characteristics to friends and not human nature characteristics (van Noorden et al., 2014). The association between bullying and the attribution of uniquely human characteristics to friends may not be strong enough to be detected in the present investigation in which attribution of uniquely human characteristics is taken together with human nature characteristics.

The results of Study 2 elaborated on the association between the attribution of human characteristics and bullying, by showing the importance of the target's involvement in bullying in addition to the child's involvement in bullying. That is, bullies, victims, bully/victims, and noninvolved children distinguished between each other in the attribution of prosocial and antisocial human characteristics. Overall, bullies, victims, and bully/victims attributed fewer prosocial and more antisocial human characteristics to each other than to noninvolved peers. More specifically, bullies attributed fewer prosocial characteristics to victims and bully/victims and more antisocial characteristics to victims than to noninvolved children; victims attributed fewer prosocial and more antisocial characteristics to bullies and bully/victims than to noninvolved children; bully/victims attributed fewer prosocial and more antisocial characteristics to bullies and victims. This is in line with the hypothesis and the findings on bullies', victims', and bully/victims' empathy for each other (van Noorden, Cillessen, et al., in press). In addition, noninvolved children attributed more prosocial human characteristics to bullies and victims than to bully/victims, and fewer antisocial human characteristics to victims than to bully/victims. Overall, bully/victims were especially perceived as having fewer prosocial and more antisocial human characteristics than other children. This is in line with a study comparing bullies, victims, bully/victims, and noninvolved peers, which revealed that bully/victims were most strongly disliked and rejected by their peers (Veenstra et al., 2005).

In attributing human characteristics, children also make a distinction based on both their own gender and on the target's gender. Although the results of Study 1 did not support our hypothesis that girls would attribute more human characteristics to peers than boys would, we did find support for this hypothesis for the attribution of human characteristics to same-gender and cross-gender peers. That is, girls attributed more prosocial characteristics to girls than to boys, while boys did not distinguish between girls and boys. This indicates that boys

and girls perceive each other differently in terms of – prosocial – human characteristics, stressing the importance of the target. This pattern of gender differences is consistent with research on girls' and boys' empathy for each other (Bryant, 1982; van Noorden, Cillessen, et al., in press).

Overall, these results are in line with the finding that people distinguish between targets when attributing human characteristics (e.g., based on group membership; Leyens et al., 2001). The present investigation found that children distinguished between human characteristics based on valence (i.e., prosocial and antisocial characteristics), which is inconsistent with dehumanization theory, which states that both desirable and undesirable human characteristics are attributed to a lesser extent to outgroups than to ingroups (Haslam, 2006; Leyens et al., 2001). A potential developmental mechanism that may account for this shift from prosocial and antisocial human characteristics to uniquely human and human nature characteristics – as is commonly observed in adults (Haslam & Loughnan, 2014) – is moral development. Over time, children learn that what is right and wrong is based on the context of circumstances (Kohlberg, 1969). For example, people teach children that lying is a bad characteristic, but sometimes they lie to make someone feel better (e.g., saying "There's nothing to be worried about, I am sure you'll do great!", even though you are highly skeptical). By taking the context into account, the valence of the characteristic may become less salient and may instead emphasize the humanness of the characteristic.

The present investigation had some limitations for which we would like to propose suggestions for future research on the association between the attribution of human characteristics and bullying involvement. These suggestions would provide additional information that may be used to reduce bullying and victimization. First, the involved children were selected based on the highest scores on bullying and/or victimization as reported by their peers; we did not select pairs of children in bullying relationships. That is, we focused on group processes, rather than dyadic relationships. By investigating specific dyadic relationships between children involved in bullying and victimization, researchers may compare differences in the attribution of human characteristics to, for example, victims in general and bully's own victims. If we know which human characteristics bullies attribute to their own victims and vice versa, we might be able to train them to focus on the prosocial human characteristics and perhaps even to disprove the antisocial characteristics.

Second, in line with previous research (e.g., Espelage, Mebane, & Adams, 2004; Veenstra et al., 2005; Williford, Boulton, & Jenson, 2014) the noninvolved group consisted of children who were not – or barely – involved in bullying and victimization according to their classmates. However, according to the participant role approach (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996), this group of children may be heterogeneous, including assistants and reinforcers who support bullying, outsiders who do nothing or are not aware of the bullying, or even defenders who help victims. With a larger sample, it

would be possible to address the heterogeneity of the noninvolved group by investigating additional bullying roles according to the participant role approach (Salmivalli et al., 1996). It is possible that children from these other subgroups differ in their attributions of human characteristics to specific others. For example, defenders may attribute more prosocial and/or fewer antisocial characteristics to victims than outsiders do. Such a finding may indicate that the attribution of human characteristics is associated with intervening in bullying and could benefit bullying prevention and intervention programs.

Third, since the studies were cross-sectional and based on correlations, we cannot draw conclusions on causal directions of our findings. For example, the finding that victimized children perceived nonfriend peers more negatively than other children did, may be a consequence of being bullied, resulting in a more negative perception of peers other than their friends. But we cannot rule out that the more negative view of nonfriends may have contributed to being victimized through behaving more negatively towards these nonfriends. Also, bullies may attribute fewer prosocial and more antisocial human characteristics to victims and bully/victims than to noninvolved peers as a result of their aggression toward them (in line with Castano & Giner-Sorolla, 2006), but it is also possible that they aggress against these targets because of their perception of these children (in line with Bandura et al., 1975). Insight into the directionality and other developmental trajectories in the association between the attribution of human characteristics and bullying involvement may be acquired through longitudinal studies among children and adolescents.

Despite some limitations, the present investigation clearly shows that children do not attribute prosocial and antisocial human characteristics to all peers to the same extent. Instead, children distinguish between friends and nonfriends. Moreover, they distinguish between peers based on their own as well as their peers' bullying involvement (and gender). Therefore, the present investigation provides valuable insight in the association between the attribution of human characteristics and aggression, which could offer new perspectives on the improvement of bullying prevention and intervention programs.

Chapter 7

General Discussion

The present dissertation examined how bullying involvement of the child and bullying involvement of the target are associated with empathy and the attribution of human characteristics. This concluding chapter integrates the main findings across the studies by discussing overarching issues that transcend those previously addressed in the separate chapters. The first section discusses how bullying involvement of both the child and the target is associated with empathy, whereas the second section discusses how bullying involvement of both the child and the target is associated with human characteristics attribution. The third section addresses the role of the gender of the child and target throughout this dissertation. The limitations and corresponding suggestions for future research will be discussed in the fourth section. The chapter concludes with comments on possible future implications for bullying and victimization prevention and intervention programs.

INDIVIDUAL AND TARGET DIFFERENCES IN EMPATHY

Research on the association between bullying involvement and empathy traditionally focuses on children's own bullying involvement. The systematic review described in Chapter 2 offers a cohesive overview of individual differences in previous studies. Overall, children's victimization is negatively associated with cognitive empathy, but appears to be unassociated with affective empathy. In contrast, children's bullying is negatively associated with affective empathy, whereas the association with cognitive empathy is less consistent with some of the studies reporting a negative association and others reporting no association. This inconsistency can be – partially – explained by the results of the empirical study presented in Chapter 3 in which the frequency of bullying involvement was disentangled from the perceived severity of bullying involvement in association with empathy. A negative association between bullying and cognitive empathy was found, but only for children who bullied frequently (in line with Jolliffe & Farrington, 2006b, 2011). This indicates that individual differences in the association between bullying involvement and empathy depend on the frequency of the bullying incidents. This may apply in particular to studies relying on self-reported bullying and victimization as they often use measures based on how often bullying incidents occurred. In contrast, peer reports based on nominations are an indication of the consensus among the classmates on whether or not someone is involved in bullying and victimization. Therefore, it appears that self-reported bullying involvement relies more heavily on the frequency than peer nominated bullying involvement does.

The same study revealed that the association between the frequency of children's bullying involvement and empathy is different from the association between the perceived severity of children's bullying involvement with empathy. Overall, when bullying and victimization

were operationalized in terms of frequency, empathy patterns were found that reflected the findings of the systematic review. Different empathy patterns were obtained when bullying and victimization were operationalized in terms of perceived severity. This does not mean that frequency is associated more strongly with empathy than perceived severity. In fact, frequency only was associated (negatively) with empathy in the context of bullying, and not in the context of victimization. In contrast, perceived severity was associated (positively) with empathy in the context of bullying and – especially – victimization. The opposite directions of the associations of frequency and perceived severity with empathy further emphasize that they are separate aspects of bullying involvement that have unique associations with empathy.

Breaking away from the tradition to treat empathy as an individual difference variable, the second study in Chapter 4 investigated empathy as an interpersonal construct that relies on characteristics of both the child experiencing the empathy and the target to whom the empathy is directed. Specifically, the empathy of bullies, victims, bully/victims, and noninvolved peers for each other was assessed. Although bullies, victims, bully/victims, and noninvolved children did not differ in their empathy *for others in general* (Chapter 2; first study of Chapter 4), they did differ from each other when the empathy target was taken into account. That is, each involved group (i.e., bullies, victims, and bully/victims) reported less empathy for the other involved groups than for the noninvolved group. This illustrates that children involved in bullying and victimization distinguish between targets based on their involvement in bullying and victimization when empathizing with others. Taking the findings of the two studies of Chapter 4 together suggests that the association between bullying involvement and empathy may depend more on the bullying involvement of the target than the bullying involvement of the child.

INDIVIDUAL AND TARGET DIFFERENCES IN HUMAN CHARACTERISTICS ATTRIBUTION

The second part of this dissertation investigated how children's bullying involvement is associated with the attribution of human characteristics to peers. Similar to the strategy used in the first part of the dissertation, bullying involvement of both the child and the target were of interest. First the attribution of human characteristics to friends and nonfriends was investigated in association with bullying and victimization (Chapter 5 and the first study of Chapter 6). This was followed by a study on the attribution of human characteristics by bullies, victims, bully/victims, and noninvolved children to each other (the second study of Chapter 6).

In these studies, Haslam's dehumanization model (2006) on uniquely human and human nature characteristics served as the theoretical framework. Because previous research had barely touched upon the human characteristics attributions of children, there

were no measures available yet to test children's attributions of uniquely human and human nature characteristics to specific peers. Therefore, a new measure was created, relying on profiles describing four human characteristics (all uniquely human or human nature characteristics) ranging from all characteristics being attributed to all characteristics being denied. One limitation of this study was that the measure only assessed desirable – or prosocial – uniquely human and human nature characteristics. To address this issue in the investigation of target differences in human characteristics attribution, a questionnaire that assessed prosocial as well as antisocial uniquely human and human nature characteristics was created. Because this questionnaire addressed each characteristic individually, a factor analysis could be conducted to examine the underlying structure of the human characteristics attributions. The examination of the factor structure favored a distinction in terms of valence (prosocial vs. antisocial human characteristics) over a distinction in terms of the human dimension (human uniqueness vs. human nature). This is not in line with Haslam's dehumanization theory (2006), which states that dehumanization is the denial of desirable as well undesirable human characteristics to another person. This alternative underlying structure of human characteristics suggests that the children in Chapter 5 did not necessarily dehumanize their peers, as concluded at the time, but that they may just have perceived these peers as having few prosocial human characteristics.

Despite adopting different distinctions in human characteristics attribution, the findings of the Chapters 5 and 6 show a unifying pattern in how children involved in bullying and victimization perceive their friends and nonfriends. Overall, children involved in bullying appear to perceive their friends as less prosocial in terms of uniquely human characteristics than other children, whereas children involved in victimization appeared to perceive their nonfriends as less prosocial and more antisocial. Since it is known that bullies tend to be friends with other bullies, and nonbullies tend to be friends with other nonbullies (Espelage, Green, & Wasserman, 2007), these findings may indicate that the bullying involvement of the target plays a role in the attribution of human characteristics, in addition to the bullying involvement of the child.

The second study in Chapter 6 revealed that the bullying involvement of the target indeed affects the attribution of human characteristics. Bullies, victims, and bully/victims attributed fewer prosocial and more antisocial human characteristics to each other than to noninvolved children. Noninvolved children attributed fewer prosocial human characteristics to bully/victims than to bullies and victims, and more antisocial human characteristics to bully/victims than to victims. Overall, these findings on children involved in bullying and victimization are in line with the findings on empathy, indicating that children distinguish between targets in the context of moral cognition. The present dissertation reveals that children do not empathize with others equally, nor do they perceive others as having human characteristics equally. Moreover, children do not only distinguish

between others based on their own bullying involvement, but also – or perhaps even more so – on the targets' bullying involvement.

ROLE OF GENDER

In addition to the bullying involvement of the child and target, the gender of the child and target was investigated. In line with the results from previous research on bullying involvement (e.g., Sentse, Kretschmer, & Salmivalli, 2015), empathy (e.g., van der Graaff et al., 2014), human characteristics attribution (e.g., Costello & Hodson, 2014), and moral disengagement (e.g., Bussey, Quin, & Dobson, 2015), several differences between boys and girls emerged throughout this dissertation. Moreover, the gender of the child often acted in interplay with the gender of the target. For example, in line with previous research (Bryant, 1982), girls reported more cognitive and affective empathy for girls than for boys, whereas boys did not distinguish between girls and boys. Similar patterns were observed in the attribution of prosocial human characteristics. A possible explanation for the same-sex positivity bias might be that children hang out more with same-sex peers than with other-sex peers (Bukowski, Newcomb, & Hartup, 1998). Children perceive others more positively when they have more contact with them (van den Berg, Segers, & Cillessen, 2012). A possible explanation for why boys do not display this bias in empathy and human characteristics attribution is that girls may be perceived to be more prosocial in general through socialization of gender roles. For example, girls are socialized to be more sensitive to the feelings of others (Zahn-Waxler, Cole, & Barrett, 1991), which would make them to be perceived as more empathic and more prosocial than boys by all children.

Despite the gender differences in mean levels of empathy and bullying, it is important to note that the associations of bullying and victimization with empathy and human characteristics attributions did not systematically vary as a function of the child's gender alone. That is, the association of bullying involvement with empathy and human characteristics attributions is not different for boys and girls. However, there were a few differences between groups of involved children in empathy and the attribution of human characteristics based on the interplay between the child's own gender and the gender of the target. Taken together, these findings reveal that empathy and human characteristics attribution depend on the interplay between characteristics of the child and the target.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The present dissertation offers valuable information on how the bullying involvement of both the child and the target is associated with empathy and the attribution of human characteristics. However, the present dissertation also contains some theoretical and methodological issues that should be addressed in future research in this domain.

The associations of bullying involvement with empathy and human characteristics attribution were investigated as separate mechanisms in bullying and victimization. Empathy is directed at an internalization of another person's emotions, whereas the attribution of human characteristics is directed at the perception of qualities in another person. Although they are distinct constructs, similar patterns in empathy and human characteristics attribution emerged in the context of bullying involvement. Bullies, victims, and bully/victims reported less cognitive and affective empathy for each other and attributed fewer prosocial and more antisocial human characteristics to each other than to noninvolved peers. This raises the question of how empathy and the attribution of human characteristics are associated with each other. Perceiving another person as a human being has been argued to induce empathy through perceived similarity (Bandura, 1992; McHugo, Smith, & Lanzetta, 1982). Future research could investigate to what extent seeing someone as possessing prosocial or antisocial human characteristics induces empathy in children. For example, certain human characteristics in a person could be emphasized after which and the level of experienced empathy for this person is measured.

Another direction for future research would be to specifically assess empathy and human characteristic attributions of bullies toward their own victims and vice versa. In the studies on the interplay between bullying involvement of the child and target, bully, victim, bully/victim, and noninvolved roles were identified based on the consensus of the classmates. Therefore, the results indicate to what extent a child's empathy and human characteristics attribution towards specific peers are associated with how these peers are viewed by the group in terms of bullying involvement. It would be interesting for future research to focus on dyadic relationships instead and investigate, for example, whether bullies experience less empathy for all victimized classmates or just to the ones they victimize themselves. Similarly, future research could investigate whether bullies attribute fewer prosocial and more antisocial human characteristics to all victimized classmates or just to the ones they victimize themselves.

Zooming in on bullying and victimization in the empirical studies enabled comparisons between children who are involved in bullying (bullies) or victimization (victims), in both (bully/victims), and in neither (noninvolved). The inclusion of the bully/victim group provided valuable information on the interplay between bullying and victimization in empathy and human characteristics attributions. First, the results of Chapter 4 indicated that having been in a peer's position does not guarantee high empathy for this peer. That is, bully/victims did not report more empathy for bullies and victims than for noninvolved peers; they actually reported less empathy for bullies and victims than for noninvolved peers. Second, of all four groups, bully/victims received the fewest prosocial and the most antisocial human characteristics attributions from their peers, indicating an additive effect of bullying and victimization in receiving human characteristic attributions. This is in line

with previous research that indicates that – of all four groups – bully/victims are most strongly disliked and rejected by their peers (Veenstra et al., 2005).

Although focusing on children involved in bullying and/or victimization is a common procedure to categorize children in bullying groups for research purposes (e.g., Espelage, Mebane, & Adams, 2004; Veenstra et al., 2005; Williford, Boulton, & Jenson, 2014), it disregards the heterogeneity of the noninvolved group. Rather than combining all children who are not directly involved in bullying and victimization into one noninvolved group, other subgroups may be investigated. The participant role approach of Salmivalli and colleagues (1996) argues that every child has a role in the bullying process. In addition to bullies and victims, there are assistants and reinforcers who support bullying, outsiders who do nothing or are not aware of the bullying, and defenders who help the victims. As described in Chapter 2, defending is associated with more empathy towards others in general. But do these defenders have empathy for all others or do they distinguish between targets just like children who bully or who are bullied? Future research could explore the level of empathy and human characteristics attribution of children within different bullying participant roles (Salmivalli et al., 1996) towards each other. For example, assistants and reinforcers may experience more empathy and attribute more prosocial and/or fewer antisocial characteristics to victims than bullies do, whereas the opposite patterns may be found for outsiders.

Another innovative direction that future research could take is to investigate whether there are age differences in the association between bullying involvement on the one hand, and empathy and human characteristics attributions on the other hand. The absence of age differences in the present dissertation may be due to the limited age range of the children under investigation. It is possible that investigated associations are stronger in adolescence. Despite a general decrease in aggression with age during childhood (Tremblay, 2000), there is "a sizable bump between the ages of 11 and 15" in bullying (p. 95, Stassen Berger, 2007). Empathy has been found to increase during adolescence, with different trajectories for in cognitive and affective empathy for boys and girls (van der Graaff et al., 2014). There is no available information on the development of human characteristics attribution. A longitudinal study following young children through childhood and adolescence could track the developmental trajectories and create insights into the interplay between bullying involvement, empathy, and human characteristics attribution over time. Are there key factors and/or moments at the early stages of development that influence the nature and strength of the associations between bullying involvement, empathy, and human characteristics attributions at later stages of development? Future research may help us answer such questions.

A related issue is the inability to infer causal relations based on the data of this dissertation. Although experimentally manipulating bullying involvement is highly

unethical, experimental manipulations of core elements of bullying could provide insight in specific causal relations with empathy and human characteristics attributions. For example, children could be placed in a high power or low power position by letting one of two children divide a number of candies or lottery tickets between them (Galinsky, Magee, Inesi, & Gruenfeld, 2006). Subsequently, empathy and human characteristics attributions towards the other person could be assessed. Such a study would offer insight into the associations of empathy and human characteristics with the power imbalance element of bullying and make it possible to pinpoint which aspects of bullying might influence empathy and human characteristics attributions towards specific others.

Rather than assessing empathy and human characteristics attributions with questionnaires, as was the case in the present dissertation, future research also could consider using implicit measures. For example, empathy can also be assessed with physiological measures. In their study of adolescents, van der Graaff and colleagues (2016) found that empathy measured with facial electromyography (EMG) was positively associated with cognitive and affective state empathy measured with questionnaires. Previous research with adults successfully used reaction-time based implicit measures, such as the Go/no-Go Association Task (GNAT; e.g., Bain, Park, Kwok, & Haslam, 2009) and the Implicit Association Test (IAT; e.g., Martinez et al., 2012) to assess human characteristics attributions. Such measures could provide insight into the automatic or uncontrolled properties of empathy and human characteristics attributions towards specific peers.

Taken together, future research could provide valuable insights into how children with different bullying roles empathize with each other, how they perceive each other in terms of human characteristics (explicitly and implicitly), and how these associations develop over time. This information could be used to further reduce bullying and victimization in children.

PRACTICAL IMPLICATIONS FOR BULLYING PREVENTION AND INTERVENTION

There are many prevention and interventions programs that aim to reduce bullying and victimization, but they are not all as effective as we would like them to be (for a systematic review, see Farrington & Ttofi, 2009). The present dissertation may contribute to the effectiveness of these programs by providing suggestions for adjustments based on the findings of target specific empathy and human characteristics attribution.

This dissertation revealed that children distinguish between targets based on their own bullying involvement as well as the target's bullying involvement. Programs aimed at increasing empathy towards specific peers could make abstract empathy conceptualizations more concrete to children and, in turn, make it easier for them to apply the taught skills.

However, training children's general abilities to understand and experience what a peer feels may not be enough to reduce bullying and victimization. That is, this dissertation revealed that children who have experience with both bullying and being bullied reported less empathy for children with the same experiences (i.e., bullies and victims) than for children who do not share their experiences (i.e., noninvolved children). Therefore, in addition to making the training of empathy skills more manageable, it may need to be combined with the recognition of prosocial human characteristics in specific peers. For example, by pointing out specific emotional experiences (e.g., optimism or disappointment) or prosocial characteristics (e.g., interpersonal warmth or cognitive openness) of classmates involved in bullying and victimization using concrete examples, other children may become more aware of these emotions and qualities in these specific peers. This awareness of other's emotions and humanity will make it harder for children to conduct harmful behavior against these peers (Bandura, 1992; McHugo, Smith, & Lanzetta, 1982).

When training empathy and human characteristics attribution, there may be some resistance from children involved in bullying. The fact that these children distinguish between targets in empathy and human characteristics attribution, may suggest underlying motivational processes. Perhaps bullies do not want to empathize with victims, or do not want to see others as prosocial individuals, because this would create feelings of shame or guilt (cf., moral disengagement theory; Bandura, 1989, 1991). This would result in the loss of positive outcomes that are thought to be gained by bullying (e.g., status and dominance over others; Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). Therefore, in addition to training children involved in bullying to empathize with victims and to see victims as individuals with prosocial human characteristics, we may need to offer bullies an alternative method to gain status that does not have negative consequences for others. This may be achieved by assigning meaningful roles and responsibilities to children involved in bullying (see Ellis, Volk, Gonzalez, & Embry, 2015).

In addition to providing suggestions for potential improvements of bullying prevention and intervention programs to make them more effective in reducing bullying and victimization, the present dissertation may also contribute to the measurement of the effectiveness of these programs. Chapter 3 revealed that the frequency of bullying involvement should be disentangled from the perceived severity as they are uniquely associated with cognitive and affective empathy. It is possible that the effectiveness of anti-bullying programs is currently underestimated due to small – or no – decreases in the frequency of bullying and victimization. There might be a larger decrease in the perceived severity of incidents that is overlooked by the sole reliance on the frequency of bullying involvement. Furthermore, the distinction between the frequency and severity of bullying and victimization also may lead to more awareness and understanding of children's bullying experiences. One should recognize that bullying can severely impact a child's well-being,

regardless of whether it happens occasionally or frequently. Therefore, bullying prevention and intervention program developers and evaluators as well as teachers, parents, peers, and researchers may gain valuable insight into mechanisms in bullying and victimization by attending to the perceived severity of bullying and victimization in addition to its frequency.

CONCLUSION

The main aim of the present dissertation was to investigate how bullying and victimization of the child and the target are associated with empathy and human characteristics attribution. In line with traditional research in the field, individual differences were found in empathy and human characteristics attribution based on the child's bullying involvement. Moreover, also the bullying involvement of the target was shown to be important. Overall, bullies, victims, and bully/victims experienced less empathy for each other than for noninvolved peers. Similarly, these children attributed fewer prosocial human characteristics and more antisocial characteristics to each other than to noninvolved peers. Together, these findings show that children display target specific empathy and human characteristic attributions based on both their own bullying involvement and the target's bullying involvement.

English Summary

Bullying and victimization pose serious threats to children's well-being and remain persistent problems in classrooms worldwide – despite existing bullying prevention and intervention programs. Further insight into mechanisms of bullying and victimization is therefore extremely important. The present dissertation investigated associations of bullying and victimization with empathy (Part 1), as well as the associations of bullying and victimization with human characteristics attribution (Part 2). The innovative nature of this dissertation lies in its focus on the distinction between targets, based on both the child's and target's bullying involvement (as perpetrator and/or victim).

Bullying involvement had already been linked to empathy in several studies, but a clear overview was lacking. Chapter 2 offered a systematic review of the literature on the association of bullying involvement with empathy. Empathy was either categorized as cognitive empathy (i.e.., understanding another person's emotions) or affective empathy (i.e.., experiencing another person's emotions). The review showed that victimization is negatively associated with cognitive empathy but not with affective empathy. Furthermore, a consistent negative association between bullying and affective empathy was found. The negative association between bullying and cognitive empathy was less consistent as there were also a number of studies reporting no association.

Chapter 3 showed that the inconsistent findings for the association between bullying and empathy may partly have been caused by the operationalization of bullying. Because repetition has been identified as a core element in the definition of bullying, the classification of bullying behavior is often determined by the frequency of incidents. Despite the distinct conceptualizations of frequency and perceived severity, they are often assumed to be interchangeable. Chapter 3 disentangled the frequency and perceived severity of experienced bullying and victimization by investigating their unique associations with cognitive and affective empathy. Overall, the main findings from the review of Chapter 2 were replicated, but only when the measurement of bullying involvement was based on the frequency of incidents – not the perceived severity. Furthermore, a negative association was found between bullying and cognitive empathy, but only for children who bullied frequently. In contrast, perceived severity of bullying involvement was positively associated with empathy. Together, these findings suggest that differences in the association between bullying involvement and empathy depend on the operationalization of bullying based on either frequency or perceived severity.

In addition to differences in empathy based on a child's bullying involvement, Chapter 4 focused on the target's bullying involvement. Specifically, the cognitive and affective empathy of bullies, victims, bully/victims, and noninvolved children towards each other was investigated. Although these four groups did not differ in their empathy for peers in general (averaged across targets) in Study 1, they did differ from each other when the target was taken into account in Study 2. That is, bullies, victims, and bully/victims showed less

cognitive and affective empathy for each other than for peers who were not involved in bullying behavior, whereas noninvolved children did not differentiate between bullies, victims, and bully/victims. This illustrates that children who are involved in bullying and/or victimization do not have empathy for all classroom peers to the same degree; rather, they differentiate between peers based on the peer's bullying involvement. Taking the findings of the two studies of Chapter 4 together suggests that the association between bullying involvement and empathy may depend more on the bullying involvement of the target than the bullying involvement of the child.

The second part of this dissertation investigated how bullying involvement is associated with the attribution of human characteristics to peers. Chapter 5 focused on the attribution of characteristics that were either uniquely human or central to human behavior to friends and nonfriends. A new human characteristics attribution measure was used that was based on profiles consisting of – desirable – human characteristics denied to varying degrees. The results revealed that bullying was positively associated with the denial of uniquely human characteristics toward friends. In contrasts, victimization was positively associated with the denial of uniquely human and human nature characteristics toward nonfriends. These findings indicate that children do not attribute human characteristics to all peers equally. Rather, they distinguish between targets based on whether the target is a friend or not.

Chapter 6 investigated to what extent bullies, victims, bully/victims, and noninvolved children attributed human characteristics to friends and nonfriends (Study 1) as well as to each other (Study 2). This time a questionnaire was used that assessed various prosocial and antisocial uniquely human and human nature characteristics separately. Factor analysis revealed a distinction in terms of valence (prosocial vs. antisocial human characteristics) rather than a distinction in terms of the human dimension (human uniqueness vs. human nature). Study 1 revealed that boy victims attributed fewer prosocial human characteristics to nonfriends than boy bullies and noninvolved boys did. In addition, victims attributed more antisocial human characteristics to nonfriends than noninvolved children did. Study 2 showed that bullies, victims, and bully/victims attributed fewer prosocial and more antisocial human characteristics to each other than to noninvolved children. Children who were not involved in bullying attributed fewer prosocial human characteristics to bully/victims than to bullies and victims, and more antisocial human characteristics to bully/victims than to victims. Combining the findings from both studies indicates that children's attribution of human characteristics is associated with their own bullying involvement as well as the target's bullying involvement.

Overall, the present dissertation shows that children do not empathize with others equally, nor do they perceive others as having human characteristics equally. Children distinguish between their peers based on their own involvement in bullying and victimization as well as their peers' involvement in bullying and victimization.

Nederlandse Samenvatting

Pesten en victimizatie vormen ernstige bedreigingen voor het welzijn van kinderen en zijn een hardnekkig probleem in de klas wereldwijd - ondanks de bestaande preventie- en interventieprogramma's. Aanvullende informatie over de mechanismen van pesten en victimizatie is daarom van groot belang. Dit proefschrift onderzocht de samenhang van pesten en victimizatie met empathie (Deel 1), alsook de samenhang van pesten en victimizatie met de attributie van menselijke eigenschappen (Deel 2). Het innovatieve karakter van dit proefschrift ligt in het idee dat kinderen onderscheid maken tussen personen voor wie empathie wordt ervaren of aan wie menselijke eigenschappen worden toegekend (ook wel targets genoemd), gebaseerd op de betrokkenheid bij pestgedrag (als dader en/of slachtoffer) van zowel het kind als de target.

De betrokkenheid bij pestgedrag was al eerder gekoppeld aan empathie in verschillende studies, maar een duidelijk overzicht ontbrak. Hoofdstuk 2 bood daarom een systematisch review van de literatuur over de samenhang van pestgedrag met empathie. Hierbij werden twee vormen van empathie geïdentificeerd: cognitieve empathie (het begrijpen van de gevoelens van een ander) en affectieve empathie (het ervaren van de gevoelens van een ander). Het onderzoek toonde aan dat victimizatie negatief samenhangt met cognitieve empathie maar niet met affectieve empathie. Daarnaast werd er een robuust negatief verband tussen pesten en affectieve empathie gevonden. De negatieve samenhang tussen pesten en cognitieve empathie was echter minder consistent doordat een aantal studies geen relatie vonden.

Hoofdstuk 3 liet zien dat de wisselende bevindingen van de samenhang tussen pestgedrag en empathie mogelijk veroorzaakt wordt door de operationalisering van pestgedrag. Vaak wordt de frequentie van incidenten gebruikt om pestgedrag te identificeren, maar vervolgens wordt de frequentie ook vaak gezien als een indicatie voor de ernst van pestgedrag. In Hoofdstuk 3 werd aangetoond dat dit onterecht is. De belangrijkste bevindingen van het review van Hoofdstuk 2 werden alleen gerepliceerd wanneer de meting van pestgedrag gebaseerd was op de frequentie - niet op de waargenomen ernst. De waargenomen ernst van pestgedrag hing zelfs positief samen met empathie. Samen laten deze bevindingen zien dat de verschillen in het verband tussen pestgedrag en empathie afhankelijk zijn van de operationalisering van pestgedrag, namelijk of deze is gebaseerd op de frequentie of op de waargenomen ernst.

Terwijl Hoofdstuk 2 en Hoofdstuk 3 zich richtten op verschillen in empathie gebaseerd op het pestgedrag van het kind, richtte Hoofdstuk 4 zich op de rol van het pestgedrag van de degenen voor wie empathie werd ervaren. Concreet werd er gekeken naar de mate van cognitieve en affectieve empathie van daders, slachtoffers, dader/slachtoffers (kinderen die zowel pesten als gepest worden) en kinderen die niet betrokken zijn bij pestgedrag. Hoewel Studie 1 liet zien dat deze vier groepen niet van elkaar verschilden in hun empathie voor anderen in het algemeen (gemiddeld over targets), liet Studie 2 zien dat ze wel van elkaar verschillen als er rekening werd gehouden met de rol in pestgedrag van de target. Daders, slachtoffers, en dader/slachtoffers vertoonden namelijk minder cognitieve en affectieve

empathie voor elkaar dan voor leeftijdsgenoten die niet betrokken waren bij pestgedrag. Kinderen die niet betrokken waren bij pestgedrag rapporteerden echter geen verschil in empathie voor de andere drie groepen. Deze bevindingen tonen aan dat kinderen die betrokken zijn bij pestgedrag (als dader en/of slachtoffer) niet voor iedereen even veel empathie hebben: Zij maken onderscheid tussen leeftijdsgenoten op basis van hun eigen rol in pestgedrag en de rol die de ander in pestgedrag heeft.

Het tweede deel van dit proefschrift onderzocht hoe pestgedrag samenhangt met de toekenning van menselijke eigenschappen aan leeftijdsgenoten. Hoofdstuk 5 richtte zich op de toekenning van eigenschappen die uniek zijn voor de mens of centraal zijn voor de menselijke natuur aan vrienden en niet-vrienden. Er werd hiervoor een nieuwe maat gebruikt om de toekenning van menselijke eigenschappen te meten, waarbij profielen werden aangeboden die varieerden in de mate waarin – gewenste – menselijke eigenschappen waren toegekend. Uit de resultaten bleek dat pesten positief samenhangt met de ontkenning van menselijke eigenschappen (unieke) bij vrienden. Victimizatie bleek juist positief samen te hangen met de ontkenning van menselijke eigenschappen (unieke en natuur) aan anderen die niet als vrienden werden gezien. Deze bevindingen geven aan dat kinderen menselijke eigenschappen niet aan iedereen gelijk toekennen, maar onderscheid maken tussen anderen op basis van vriendschap.

In Hoofdstuk 6 werd onderzocht in hoeverre daders, slachtoffers dader/slachtoffers en kinderen die niet betrokken zijn bij pesten menselijke eigenschappen toekennen aan vrienden en niet-vrienden (Studie 1), en aan elkaar (Studie 2). In tegenstelling tot het onderzoek in Hoofdstuk 5, werd er een vragenlijst gebruikt waarbij zowel prosociale als antisociale menselijke eigenschappen werden onderzocht. De factor analyse toonde aan dat de menselijke eigenschappen in te delen waren op basis van valentie (prosociaal versus antisociaal) en niet op basis van menselijke dimensie (uniek versus natuur). Uit Studie 1 bleek dat slachtoffers minder prosociale eigenschappen toekenden aan niet-vrienden dan dat daders en niet-betrokkenen dat deden (bij jongens). Uit Studie 2 bleek dat kinderen die betrokken zijn bij pestgedrag (daders, slachtoffers, en dader/slachtoffers) minder prosociale en meer antisociale menselijke eigenschappen aan elkaar toekenden dan aan kinderen die niet betrokken zijn bij pestgedrag. Kinderen die niet betrokken zijn bij pestgedrag kenden minder prosociale en meer antisociale eigenschappen toe aan dader/slachtoffers dan aan daders en slachtoffers. Deze bevindingen tonen aan dat de toekenning van menselijke eigenschappen plaatsvindt op basis van de betrokkenheid bij pestgedrag van zowel het kind als van de degene aan wie de eigenschappen wordt toegekend.

Samengevat, dit proefschrift laat zien dat kinderen niet voor iedereen evenveel empathie hebben en ook niet aan iedereen evenveel menselijke eigenschappen toekennen. In plaats daarvan maken kinderen onderscheid tussen hun leeftijdsgenoten op basis van hun eigen rol binnen pestgedrag en op basis van de rol van de ander binnen pestgedrag.

References

Almeida, A., Correia, I., & Marinho, S. (2010). Moral disengagement, normative beliefs of peer group, and attitudes regarding roles in bullying. *Journal of School Violence, 9,* 23-36. doi: 10.1080/15388220903185639

Almeida, A., Correia, I., Marinho, S., & Garcia, D. (2012). Virtual but not less real: A study of cyberbullying and its relations to moral disengagement and empathy. In Q. Li, D. Cross, & P. K. Smith (Eds.), *Cyberbullying in the global playground: Research from international perspectives* (pp. 223-244). Oxford, UK: Wiley-Blackwell.

Ang, R. P., & Goh, D. H. (2010). Cyberbullying among adolescents: The role of affective and cognitive empathy, and gender. *Child Psychiatry and Human Development, 41,* 387-397. doi:10.1007/s10578-010-0176-3

Archer, J. (2001). A strategic approach to aggression. *Social Development, 10*, 267-271. doi:10.1111/1467-9507.00163

Arseneault, L., Bowes, L., & Shakoor, S. (2010). Bullying victimization in youths and mental health problems: 'Much ado about nothing'? *Psychological Medicine, 40*, 717-729. doi: 10.1017/S0033291709991383

Bain, P., Park, J., Kwok, C., & Haslam, N. (2009). Attributing human uniqueness and human nature to cultural groups: Distinct forms of subtle dehumanization. *Group Processes & Intergroup Relations, 12*, 789-805. doi: 10.1177/1368430209340415

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Theory, research and applications* (Vol. 1, pp. 71-129). Hillsdale, NJ: Erlbaum.

Bandura, A. (1992). Social cognitive theory of social referencing. In S. Feinman (Ed.), *Social referencing and the social construction of reality in infancy* (pp. 175-208). New York: Plenum.

Bandura, A., Barbaranelli, C., & Caprara, G. V. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71,* 364-374. doi: 10.1037//0022-3514.71.2.364

Bandura, A., Underwood, B., & Fromson, M. E. (1975). Disinhibition of aggression through diffusion of responsibility and dehumanization of victims. *Journal of Research in Personality, 9,* 253-269. doi: 10.1016/0092-6566(75)90001-x

Barchia, K., & Bussey, K. (2011). Predictors of student defenders of peer aggression victims: Empathy and social cognitive factors. *International Journal of Behavioral Development, 35,* 289-297. doi: 10.1177/0165025410396746

Barhight, L. R., Hubbard, J. A., & Hyde, C. T. (2013). Children's physiological and emotional reactions to witnessing bullying predict bystander intervention. *Child Development, 84,* 375-390. doi:10.1111/j.1467-8624.2012.01839.x

Bastian, B., & Haslam, N. (2010). Excluded from humanity: The dehumanizing effects of social ostracism. *Journal of Experimental Social Psychology, 46*, 107-113. doi: 10.1016/j.jesp.2009.06.022

Bastian, B., & Haslam, N. (2011). Experiencing dehumanization: Cognitive and emotional effects of everyday dehumanization. *Basic and Applied Social Psychology, 33*, 295-303. doi: 10.1080/01973533.2011.614132

Belacchi, C., & Farina, E. (2012). Feeling and thinking of others: Affective and cognitive empathy and emotion comprehension in prosocial/hostile preschoolers. *Aggressive Behavior, 38,* 150-165. doi:10.1002/ab.21415

Bellmore, A., Ma, T. L., You, J. I., & Hughes, M. (2012). A two-method investigation of early adolescents' responses upon witnessing peer victimization in school. *Journal of Adolescence, 35,* 1265-1276. doi:10.1016/j.adolescence.2012.04.012

Bonino, S., Lo Coco, A., & Tani, F. (1998). *Empatia: Processi di condivisione delle emozioni [Empathy: Processes of emotional sharing]*. Florence: Giunti.

Borg, M. G. (1999). The extent and nature of bullying among primary and secondary schoolchildren. *Educational Research, 41*, 137-153. doi:10.1080/0013188990410202

Boulton, M. J., & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology, 62,* 73-87. doi:10.1111/j.2044-8279.1992.tb01000.x

Bouman, T., van der Meulen, M., Goossens, F. A., Olthof, T., Vermande, M. M., & Aleva, E. A. (2012). Peer and self-reports of victimization and bullying: Their differential association with internalizing problems and social adjustment. *Journal of School Psychology, 50,* 759-774. doi:10.1016/j.jsp.2012.08.004

Branson, C. E., & Cornell, D. G. (2009). A comparison of self and peer reports in the assessment of middle school bullying. *Journal of Applied School Psychology, 25*, 5-27. doi:10.1080/15377900802484133

Brown, R., Eller, A., Leeds, S., & Stace, K. (2007). Intergroup contact and intergroup attitudes: A longitudinal study. *European Journal of Social Psychology, 37,* 692-703. doi: 10.1002/ejsp.384

Bryant, K. B. (1982). An index of empathy for children and adolescents. *Child Development, 53,* 413-425. doi: 10.2307/1128984

Bukowski, W. M., Newcomb, A. F., & Hartup, W. W. (1998). *The company they keep: Friendships in childhood and adolescence*. Cambridge University Press.

Bussey, K., Quinn, C., & Dobson, J. (2015). The moderating role of empathic concern and perspective taking on the relationship between moral disengagement and aggression. *Merrill-Palmer Quarterly, 61,* 10-29. doi: 10.13110/merrpalmquar1982.61.1.0010

Camodeca, M., Goossens, F. A., Schuengel, C., & Terwogt, M. M. (2003). Links between social information processing in middle childhood and involvement in bullying. *Aggressive Behavior, 29*, 116-127. doi: 10.1002/ab.10043

Capozza, D., Andrighetto, L., Di Bernardo, G. A., & Falvo, R. (2012). Does status affect intergroup perceptions of humanity? *Group Processes & Intergroup Relations, 15*, 363-377. doi: 10.1177/1368430211426733

Cappadocia, M. C., Pepler, D., Cummings, J. G., & Craig, W. (2012). Individual motivations and characteristics associated with bystander intervention during bullying episodes among children and youth. *Canadian Journal of School Psychology, 27,* 201-216. doi: 10.1177/0829573512450567

Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development, 18*, 140-163. doi:10.1111/j.1467-9507.2008.00465.x

Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2010). Early adolescents' participation in bullying: Is ToM involved? *Journal of Early Adolescence, 30*, 138-170. doi:10.1177/0272431609342983

Card, N. A., & Hodges, E. V. E. (2008). Peer victimization among schoolchildren: Correlations, causes, consequences, and considerations in assessment and intervention. *School Psychology Quarterly, 23*, 451-461. doi:10.1037/a0012769

Castano, E., & Giner-Sorolla, R. (2006). Not quite human: Infrahumanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology, 90*, 804-818. doi: 10.1037/0022-3514.90.5.804

Chaux, E., Castro, L., Daza, J., Díaz, C., & Hurtado, N. (2004). *Empatía: Instrumento de autoreporte.* Universidad de los Andes.

Chaux, E., Molano, A., & Podlesky, P. (2009). Socio-economic, socio-political and socio-emotional variables explaining school bullying: A country-wide multilevel analysis. *Aggressive Behavior, 35*, 520-529. doi:10.1002/ab.20320

Chen, L. M., Cheng, Y. Y., Wang, W. C., & Hsueh, C.-W. (2015). The intersection between perceived severity and frequency of being bullied: A Rasch measurement approach. *Educational Psychology, 35*, 397-415. doi:10.1080/01443410.2013.864755

Chlopan, B. E., McCain, M. L., Carbonell, J. L., & Hagan, R. L. (1985). Empathy: Review of available measures. *Journal of Personality and Social Psychology, 48*, 635-653. doi:10.1037/0022-3514.48.3.635

Ciucci, E., & Baroncelli, A. (2014). The emotional core of bullying: Further evidences of the role of callous–unemotional traits and empathy. *Personality and Individual Differences, 67,* 69-74. doi:10.1016/j.paid.2013.09.033

Cohen, D., & Strayer, J. (1996). Empathy in conduct-disordered and comparison youth. *Developmental Psychology, 32,* 988-998. doi: 10.1037/0012-1649.32.6.988

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557-570. doi: 10.1037/0012-1649.18.4.557

Coie, J. D., Dodge, K. A., Terry, R., & Wright, V. (1991). The role of aggression in peer relations: An analysis of aggression episodes in boys' play groups. *Child Development, 62*, 812-826. doi:10.2307/1131179

Coleman, P. K., & Byrd, C. P. (2003). Interpersonal correlates of peer victimization among young adolescents. *Journal of Youth and Adolescence, 32*, 301-314. doi:10.1023/A:1023089028374

Cornell, D. G., & Brockenbrough, K. (2004). Identification of bullies and victims: A comparison of methods. *Journal of School Violence, 3*, 63-87. doi:10.1300/J202v03n02_05

Correia, I., & Dalbert, C. (2008). School bullying: Belief in a personal just world of bullies, victims, and defenders. *European Psychologist, 13*, 248-254. doi: 10.1027/1016-9040.13.4.248

Costello, K., & Hodson, G. (2014). Explaining dehumanization among children: The interspecies model of prejudice. *British Journal of Social Psychology, 53*, 175-197. doi: 10.1111/bjso.12016

Crick, N. R., & Dodge, K. A. (1999). 'Superiority' is in the eye of the beholder: A comment on Sutton, Smith, and Swettenham. *Social Development, 8*, 128-131. doi:10.1111/1467-9507.00084

Damon, W., Lerner, R. M., & Eisenberg, N. (2006). *Handbook of child psychology: Social, emotional, and personality development* (6th ed.). New York: Wiley.

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10*, 85.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126. doi: 10.1037/0022-3514.44.1.113

Demoulin, S., Leyens, J. P., Paladino, M. P., Rodriguez, R. T., Rodriguez, A. P., & Dovidio, J. (2004). Dimensions of "uniquely" and "non-uniquely" human emotions. *Cognition & Emotion, 18*, 71-96. doi: 10.1080/02699930244000444

Dooley, J. J., Pyżalski, J., & Cross, D. (2009). Cyberbullying versus face-to-face bullying. *Zeitschrift für Psychologie/ Journal of Psychology, 217*, 182-188. doi:10.1027/0044-3409.217.4.182

Due, P., Holstein, B. E., Lynch, J., Diderichsen, F., Gabhain, S. N., Scheidt, P., Currie, C., & The Health Behaviour in School-Aged Children Bullying Working Group (2005). Bullying and symptoms among school-aged children: International comparative cross sectional study in 28 countries. *The European Journal of Public Health, 15,* 128-132. doi: 10.1093/eurpub/cki105

Eisenberg, N., & Fabes, R. A. (1990). Empathy: Conceptualization, measurement, and relation to prosocial behavior. *Motivation and Emotion, 14,* 131-149. doi:10.1007/BF00991640

Eisenberg, N., & Lennon, R. (1983). Sex differences in empathy and related capacities. *Psychological Bulletin, 94,* 100-131. doi: 10.1037/0033-2909.94.1.100

Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin, 101*, 91-119. doi:10.1037/0033-2909.101.1.91

Eisenberg, N., & Strayer, J. (1987). Critical issues in the study of empathy. In N. Eisenberg & J. Strayer (Eds.), *Empathy and its development* (pp. 3-13). New York, NY: Cambridge University Press.

Ellis, B. J., Volk, A., Gonzalez, J. M., & Embry, D. D. (2015). The Meaningful Roles intervention: An evolutionary approach to reducing bullying and increasing prosocial behavior. *Journal of Research in Adolescence.* Advance online publication. doi: 10.1111/jora.12243

Endresen, I. M., & Olweus, D. (2001). Self-reported empathy in Norwegian adolescents: Sex differences, age trends, and relationship to bullying. In A. C. Bohart & D. J. Stipek (Eds.), *Constructive & destructive behavior: Implications for family, school, & society* (pp. 147-165). Washington, DC, US: American Psychological Association.

Espelage, D. L., Green, H. D., & Wasserman, S. (2007). Statistical analysis of friendship patterns and bullying behaviors among youth. *New Directions for Child and Adolescent Development, 118,* 61-75. doi: 10.1002/cd.201

Espelage, D. L., Green, H., & Polanin, J. (2012). Willingness to intervene in bullying episodes among middle school students: Individual and peer-group influences. *The Journal of Early Adolescence, 32*, 776-801. doi:10.1177/0272431611423017

Espelage, D. L., Mebane, S. E., & Adams, R. S. (2004). Empathy, caring, and bullying: Toward an understanding of complex associations. In D. L. Espelage & S. M. Swearer (Eds.), *Bullying in American schools: A social-ecological perspective on prevention and intervention* (pp. 37-61). Mahwah, NJ: Lawrence Erlbaum Associates.

Farrington, D. P., & Ttofi, M. M. (2009). School-based programs to reduce bullying and victimization. *Campbell Systematic Reviews, 6*. doi: 10.4073/csr.2009.6

Fekkes, M., Pijpers, F. I. M., & Verloove-Vanhorick, S. P. (2005). Bullying: Who does what, when, and where? Involvement of children, teachers and parents in bullying behavior. *Health Education Research, 20*, 81-91. doi: 10.1093/her/cyg100

Feshbach, N. D. (1975). Empathy in children: Some theoretical and empirical considerations. *The Counseling Psychologist, 5,* 25-30. doi:10.1177/001100007500500207

Feshbach, N. D., & Feshbach, S. (1982). Empathy training and the regulation of aggression: Potentialities and limitations. *Academic Psychology Bulletin, 4*, 399-413.

Feshbach, N. D., & Roe, K. (1968). Empathy in six-and seven-year-olds. *Child Development, 39,* 133-145. doi: 10.2307/1127365

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science, 17,* 1068-1074. doi: 10.1111/j.1467-9280.2006.01824.x

Gano-Overway, L. A. (2013). Exploring the connections between caring and social behaviors in physical education. *Research Quarterly for Exercise and Sport, 84*, 104-114. doi:10.1080/02701367.2013.762322

Garton, A. F., & Gringart, E. (2005). The development of a scale to measure empathy in 8-and 9-year old children. *Australian Journal of Education and Developmental Psychology, 5,* 17-25.

Gini, G. (2006). Social cognition and moral cognition in bullying: What's wrong? *Aggressive Behavior, 32*, 528-539. doi:10.1002/Ab.20153

Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2007). Does empathy predict adolescents' bullying and defending behavior? *Aggressive Behavior, 33*, 467-476. doi:10.1002/ab.20204

Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2008). Determinants of adolescents' active defending and passive bystanding behavior in bullying. *Journal of Adolescence, 31*, 93-105. doi:10.1016/j.adolescence.2007.05.002

Gini, G., Pozzoli, T., & Bussey, K. (2015). The role of individual and collective moral disengagement in peer aggression and bystanding: A multilevel analysis. *Journal of Abnormal Child Psychology, 43*, 441-452. doi: 10.1007/s10802-014-9920-7

Gini, G., Pozzoli, T., & Hauser, M. (2011). Bullies have enhanced moral competence to judge relative to victims, but lack moral compassion. *Personality and Individual Differences, 50*, 603–608. doi:10.1016/j.paid.2010.12.002

Gini, G., Pozzoli, T., & Hymel, S. (2014). Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. *Aggressive Behavior, 40*, 56–68. doi: 10.1002/ab.21502

Gladden, R. M., Vivolo-Kantor, A. M., Hamburger, M. E., & Lumpkin, C. D. (2014). *Bullying surveillance among youths: Uniform definitions for public health and recommended data elements*, Version 1.0. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention and U.S. Department of Education.

Gleason, K. A., Jensen-Campbell, L. A., & Ickes, W. (2009). The role of empathic accuracy in adolescents' peer relations and adjustment. *Personality and Social Psychology Bulletin, 35*, 997-1011. doi:10.1177/0146167209336605

Halpern, J., & Weinstein, H. M. (2004). Rehumanizing the other: Empathy and reconciliation. *Human Rights Quarterly, 26*, 561-583. doi: 10.1353/hrq.2004.0036

Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. *Psychological Science, 17*, 847-853. doi: 10.1111/j.1467-9280.2006.01793.x

Harris, L. T., & Fiske, S. T. (2009). Social neuroscience evidence for dehumanised perception. *European Review of Social Psychology, 20*, 192-231. doi: 10.1080/10463280902954988

Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review, 10,* 252-264. doi: 10.1207/s15327957pspr1003_4

Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual Review of Psychology, 65*, 399-423. doi: 10.1146/annurev-psych-010213-115045

Haslam, N., Bain, P., Douge, L., Lee, M., & Bastian, B. (2005). More human than you: Attributing humanness to self and others. *Journal of Personality and Social Psychology, 89,* 937-950. doi: 10.1037/0022-3514.89.6.937

Haslam, N., Bastian, B., & Bissett, M. (2004). Essentialist beliefs about personality and their implications. *Personality and Social Psychology Bulletin, 30*, 1661-1673. doi: 10.1177/0146167204271182

Haslam, N., Loughnan, S., Kashima, Y., & Bain, P. (2008). Attributing and denying humanness to others. *European Review of Social Psychology, 19*, 55-85. doi: 10.1080/10463280801981645

Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*, 441-455. doi: 10.1111/1469-7610.00629

Hodson, G., & Costello, K. (2007). Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science, 18*, 691-698. doi: 10.1111/j.1467-9280.2007.01962.x

Hoffman, M. L. (2000). Empathy and moral development: Implications for caring and justice. New York, NY: Cambridge University Press.

Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology, 33*, 307-316. doi: 10.1037/h0027580

Hymel, S., Rocke-Henderson, N., & Bonanno, R. A. (2005). Moral disengagement: A framework for understanding bullying among adolescents. *Journal of Social Sciences 8*, 1-11.

Isaacs, J., Card, N. A., & Hodges, E. V. E. (2001). Victimization by peers in the school context. *New York State Psychologist, 13*, 21-24.

Jolliffe, D., & Farrington, D. P. (2004). Empathy and offending: A systematic review and meta-analysis. *Aggression and Violent Behavior, 9*, 441-476. doi:10.1016/j.avb.2003.03.001

Jolliffe, D., & Farrington, D. P. (2006a). Development and validation of the Basic Empathy Scale. *Journal of Adolescence, 29*, 589-611. doi: 10.1016/j.adolescence.2005.08.010

Jolliffe, D., & Farrington, D. P. (2006b). Examining the relationship between low empathy and bullying. *Aggressive Behavior, 32*, 540-550. doi:10.1002/Ab.20154

Jolliffe, D., & Farrington, D. P. (2011). Is low empathy related to bullying after controlling for individual and social background variables? *Journal of Adolescence, 34*, 59-71. doi:10.1016/j.adolescence.2010.02.001

Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views versus peer perceptions of victim status among early adolescents. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105-124). New York: Guilford.

Kelman, H. G. (1973). Violence without moral restraint: Reflections on the dehumanization of victims and victimizers. *Journal of Social Issues, 29,* 25-61. doi: 10.1111/j.1540-4560.1973.tb00102.x

Kert, A. S., Codding, R. S., Tryon, G. S., & Shiyko, M. (2010). Impact of the word "bully" on the reported rate of bullying behavior. *Psychology in the Schools, 47*, 193-204. doi:10.1002/pits.20464

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347-480). New York: Rand McNally.

Kokkinos, C. M., & Kipritsi, E. (2012). The relationship between bullying, victimization, trait emotional intelligence, self-efficacy and empathy among preadolescents. *Social Psychology of Education, 15*, 41-58. doi:10.1007/s11218-011-9168-9

Lagerspetz, K. M. J., Björkqvist, K. A. J., Berts, M., & King, E. (1982). Group aggression among school children in three schools. *Scandinavian Journal of Psychology, 23*, 45-52. doi:10.1111/j.1467-9450.1982.tb00412.x

Leith, K. P., & Baumeister, R. F. (1998). Empathy, shame, guilt, and narratives of interpersonal conflicts: Guilt-prone people are better at perspective taking. *Journal of Personality, 66*, 1-37. doi:10.1111/1467-6494.00001

Lennon, R., & Eisenberg, N. (1987). Gender and age differences in empathy and sympathy. In N. Eisenberg & J. Strayer (Eds.), *Empathy and its development* (pp. 195-217). New York: Cambridge University Press.

Leyens, J. P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., . . . Vaes, J. (2003). Emotional prejudice, essentialism, and nationalism: The 2002 Tajfel lecture. *European Journal of Social Psychology, 33*, 703-717. doi: 10.1002/ejsp.170

Leyens, J. P., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M. P. (2007). Infra-humanization: The wall of group differences. *Social Issues and Policy Review, 1*, 139-172. doi: 10.1111/j.1751-2409.2007.00006.x

Leyens, J. P., Paladino, M. P., Rodriguez, R. T., Vaes, J., Demoulin, S., Rodriguez, A. P., & Gaunt, R. (2000). The emotional side of prejudice: The attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review, 4,* 186-197. doi: 10.1207/S15327957PSPR0402_06

Leyens, J. P., Rodriguez, A. P., Rodriguez, R. T., Gaunt, R., Paladino, M. P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology, 31*, 395-411. doi: 10.1002/ejsp.50

Loughnan, S., & Haslam, N. (2007). Animals and androids: Implicit associations between social categories and nonhumans. *Psychological Science, 18*, 116-121. doi: 10.1111/j.1467-9280.2007.01858.x

Loughnan, S., Haslam, N., & Kashima, Y. (2009). Understanding the relationship between attribute-based and metaphor-based dehumanization. *Group Processes & Intergroup Relations, 12,* 747-762. doi: 10.1177/1368430209347726

Lovett, B. J., & Sheffield, R. A. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review, 27*, 1-13. doi:10.1016/j.cpr.2006.03.003

Malti, T., Perren, S., & Buchmann, M. (2010). Children's peer victimization, empathy, and emotional symptoms. *Child Psychiatry and Human Development, 41,* 98-113. doi:10.1007/s10578-009-0155-8

Martin, J., Bennett, M., & Murray, W. S. (2008). A developmental study of the infrahumanization hypothesis. *British Journal of Developmental Psychology, 26*, 153-162. doi: 10.1348/026151007x216261

Martinez, R., Rodriguez-Bailon, R., & Moya, M. (2012). Are they animals or machines? Measuring dehumanization. *The Spanish Journal of Psychology, 15*, 1110-1122. doi: 10.5209/rev_SJOP.2012.v15.n3.39401

Maunder, R. E., Harrop, A., & Tattersall, A. J. (2010). Pupil and staff perceptions of bullying in secondary schools: Comparing behavioural definitions and their perceived seriousness. *Educational Research, 52*, 263-282. doi:10.1080/00131881.2010.504062

McHugo, G. J., Smith, C. A., & Lanzetta, J. T. (1982). The structure of self-reports of emotional responses to film segments. *Motivation and Emotion, 6*, 365-385.

Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40*, 525-543. doi:10.1111/j.1467-6494.1972.tb00078.x

Menesini, E., Sanchez, V., Fonzi, A., Ortega, R., Costabile, A., & Lo Feudo, G. (2003). Moral emotions and bullying: A cross-national comparison of differences between bullies, victims and outsiders. *Aggressive Behavior, 29*, 515-530. doi: 10.1002/ab.10060

Meyer, M. L., Masten, C. L., Ma, Y., Wang, C., Shi, Z., Eisenberger, N. I., & Han, S. (2013). Empathy for the social suffering of friends and strangers recruits distinct patterns of brain activation. *Social Cognitive and Affective Neuroscience, 8,* 446-454. doi: 10.1093/scan/nss019

Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin, 103*, 324-344. doi:10.1037/0033-2909.103.3.324

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine, 151*, 264-269. doi:10.7326/0003-4819-151-4-200908180-00135

Muñoz, L., Qualter, P., & Padgett, G. (2011). Empathy and bullying: Exploring the influence of callous-unemotional traits. *Child Psychiatry and Human Development, 42*, 183-196. doi:10.1007/s10578-010-0206-1

Nickerson, A. B., & Mele-Taylor, D. (2014). Empathetic responsiveness, group norms, and prosocial affiliations in bullying roles. *School Psychology Quarterly, 29*, 99-109. doi: 10.1037/spq0000052

Nickerson, A. B., Mele, D., & Princiotta, D. (2008). Attachment and empathy as predictors of roles as defenders or outsiders in bullying interactions. *Journal of School Psychology, 46,* 687-703. doi: 10.1016/j.jsp.2008.06.002

O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence, 22*, 437-452. doi:10.1006/jado.1999.0238

Obermann, M.-L. (2011). Moral disengagement in self-reported and peer-nominated school bullying. *Aggressive Behavior, 37*, 133-144. doi: 10.1002/ab.20378

Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 411-448). Hillsdale, NJ: Erlbaum.

Olweus, D. (1993). Bullying at school. *What we know and what we can do*. Oxford, UK: Blackwell.

Olweus, D. (1996). Bullying at school: Knowledge base and an effective intervention program. *Annals of the New York Academy of Sciences, 794*, 265-276. doi: 10.1111/j.1749-6632.1996.tb32527.x

Olweus, D. (2010). Understanding and researching bullying: Some critical issues. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools.* New York: Routhledge.

Olweus, D., & Endresen, I. M. (1998). The importance of sex-of-stimulus object: Age trends and sex differences in empathic responsiveness. *Social Development, 7,* 370-388. doi: 10.1111/1467-9507.00073

Paladino, M. P., Leyens, J. P., Rodriguez, R. T., Rodriguez, A. P., Gaunt, R., & Demoulin, S. (2002). Differential association of uniquely and non uniquely human emotions with the ingroup and the outgroup. *Group Processes & Intergroup Relations, 5*, 105-117. doi: 10.1177/1368430202005002539

Park, J. H. (2013). Differential correlates of bully/victim status and bystander roles of school violence with school adjustment in Korea. *KEDI Journal of Educational Policy, Special Issue,* 119-133.

Pellegrini, A. D., & Bartini, M. (2000). A longitudinal study of bullying, victimization, and peer affiliation during the transition from primary school to middle school. *American Educational Research Journal, 37,* 699-725. doi:10.2307/1163486

Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary school through secondary school. *British Journal of Developmental Psychology, 20*, 259-280. doi:10.1348/026151002166442

Pelton, J., Gound, M., Forehand, R., & Brody, G. (2004). The moral disengagement scale: Extension with an American minority sample. *Journal of Psychopathology and Behavioral Assessment, 26*, 31-39. doi: 10.1023/B:JOBA.0000007454.34707.a5

Perren, S., Gutzwiller-Helfenfinger, E., Malti, T., & Hymel., S. (2012). Moral reasoning and emotion attributions of adolescent bullies, victims, and bully-victims. *British Journal of Developmental Psychology, 30*, 511-530. doi: 10.1111/j.2044-835X.2011.02059.x

Pettalia, J. L., Levin, E., & Dickinson, J. (2013). Cyberbullying: Eliciting harm without consequence. *Computers in Human Behavior, 29*, 2758-2765. doi:10.1016/j.chb.2013.07.020

Poteat, V. P., & Espelage, D. L. (2005). Exploring the relation between bullying and homophobic verbal content: The Homophobic Content Agent Target (HCAT) scale. *Violence and Victims, 20,* 513-528. doi:10.1891/vivi.2005.20.5.513

Poteat, V. P., DiGiovanni, C. D., & Scheer, J. R. (2013). Predicting homophobic behavior among heterosexual youth: Domain general and sexual orientation-specific factors at the individual and contextual level. *Journal of Youth and Adolescence, 42*, 351-362. doi:10.1007/s10964-012-9813-4

Pouwels, J. L., Scholte, R. H. J., van Noorden, T. H. J., & Cillessen, A. H. N. (2016). Interpretations of bullying by bullies, victims, and bully-victims in interactions at different levels of abstraction. *Aggressive Behavior, 42,* 54-65. doi: 10.1002/ab.21605

Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2010). What does it take to stand up for the victim of bullying?: The interplay between personal and social factors. *Merrill-Palmer Quarterly, 56*, 143-163. doi: 10.1353/mpq.0.0046

Pozzoli, T., Gini, G., & Vieno, A. (2012). Individual and class moral disengagement in bullying among elementary school children. *Aggressive Behavior, 38,* 378-388. doi: 10.1002/ab.21442

Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind? *Behavioral and Brain Sciences, 1*, 515-526. doi:10.1017/S0140525X00076512

Raskauskas, J. (2005). Bullying on the school bus. *Journal of School Violence, 4,* 93-107. doi:10.1300/J202v04n03_08

Raskauskas, J. L., Gregory, J., Harvey, S. T., Rifshana, F., & Evans, I. M. (2010). Bullying among primary school children in New Zealand: Relationships with prosocial behaviour and classroom climate. *Educational Research, 52*, 1-13. doi: 10.1080/00131881003588097

Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect, 34,* 244-252. doi: 10.1016/j.chiabu.2009.07.009

Renati, R., Berrone, C., & Zanetti, M. A. (2012). Morally disengaged and unempathic: Do cyberbullies fit these definitions? An exploratory study. *Cyberpsychology, Behavior, and Social Networking, 15,* 391-398. doi:10.1089/cyber.2012.0046

Rigby, K. (2000). Effects of peer victimization in schools ad perceived social support on adolescent well-being. *Journal of Adolescence, 23*, 57-68. doi:10.1006/jado.1999.0289

Rivers, I., & Noret, N. (2010). 'I h8 u': Findings from a five-year study of text and email bullying. *British Educational Research Journal, 36*, 643-671. doi:10.1080/01411920903071918

Rodkin, P. C., Espelage, D. L., & Hanish, L. D. (2015). A relational framework for understanding bullying: Developmental antecedents and outcomes. *American Psychologist, 70,* 311-321. doi: 10.1037/a0038658

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132*, 98-131. doi:10.1037/0033-2909.132.1.98

Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behavior, 15*, 112-120. doi:10.1016/j.avb.2009.08.007

Salmivalli, C., & Peets, K. (2009). Bullies, victims, and bully-victim relationships in middle childhood and early adolescence. In K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 322-340). New York, NY: Guilford Press.

Salmivalli, C., Lagerspetz, K. M. J., Björkqvist, K., Österman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior, 22,* 1-15. doi:10.1002/(sici)1098-2337(1996)22:1<1::aid-ab1>3.0.co;2-t

Scheithauer, H., Hayer, T., Petermann, F., & Jugert, G. (2006). Physical, verbal, and relational forms of bullying among German students: Age trends, gender differences, and correlates. *Aggressive Behavior, 32*, 261-275. doi:10.1002/ab.20128

Scholte, R. H. J., Engels, R. C. M. E., Overbeek, G., de Kemp, R. A. T., & Haselager, G. J. T. (2007). Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of Abnormal Child Psychology, 35,* 217-228. doi: 10.1007/s10802-006-9074-3

Schultze-Krumbholz, A., & Scheithauer, H. (2009). Social-behavioral correlates of cyberbullying in a German student sample. *Zeitschrift für Psychologie/Journal of Psychology, 217*, 224-226. doi:10.1027/0044-3409.217.4.224

Schwartz, D., Proctor, L., & Chien, D. (2001). The aggressive victim of bullying: Emotional and behavioral dysregulation as a pathway to victimization by peers. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 147-174). New York: Guilford.

Sentse, M., Kretschmer, T., & Salmivalli, C. (2015). The longitudinal interplay between Bullying, Victimization, and Social Status: Age-related and gender differences. *Social Development, 24*, 659-677. doi: 10.1111/sode.12115

Sijtsema, J. J., Veenstra, R., Lindenberg, S., & Salmivalli, C. (2009). Empirical test of bullies' status goals: Assessing direct goals, aggression, and prestige. *Aggressive Behavior, 35,* 57-67. doi: 10.1002/ab.20282

Slee, P. T. (1994). Situational and interpersonal correlates of anxiety associated with peer victimisation. *Child Psychiatry and Human Development, 25*, 97-107. doi:10.1007/BF02253289

Spreng, R. N., McKinnon, M. C., Mar, R. A., & Levine, B. (2009). The Toronto Empathy Questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. *Journal of Personality Assessment, 91*, 62-71. doi: 10.1080/00223890802484381

Stassen Berger, K. (2007). Update on bullying at school: Science forgotten? *Developmental Review, 27*, 90-126. doi:10.1016/j.dr.2006.08.002

Stavrinides, P., Georgiou, S., & Theofanous, V. (2010). Bullying and empathy: A short-term longitudinal investigation. *Educational Psychology, 30*, 793-802. doi:10.1080/01443410.2010.506004

Sticca, F., & Perren, S. (2013). Is Cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth and Adolescence, 42,* 739-750. doi:10.1007/s10964-012-9867-3

Sticca, F., Ruggieri, S., Alsaker, F., & Perren, S. (2013). Longitudinal risk factors for cyberbullying in adolescence. *Journal of Community and Applied Social Psychology, 23,* 52-67. doi:10.1002/casp.2136

Stinson, L., & Ickes, W. (1992). Empathic accuracy in the interactions of male friends versus male strangers. *Journal of Personality and Social Psychology, 62*, 787-797. doi: 10.1037/0022-3514.62.5.787

Sutton, J., Smith, P. K., & Swettenham, J. (1999a). Bullying and 'theory of mind': A critique of the 'social skills deficit' view of anti-social behaviour. *Social Development, 8*, 117-127. doi:10.1111/1467-9507.00083

Sutton, J., Smith, P. K., & Swettenham, J. (1999b). Social cognition and bullying: Social inadequacy or skilled manipulation? *British Journal of Developmental Psychology, 17,* 435-450. doi:10.1348/026151099165384

Sutton, J., Smith, P. K., & Swettenham, J. (1999c). Socially undesirable need not be incompetent: A response to Crick and Dodge. *Social Development, 8*, 132-134. doi:10.1111/1467-9507.00085

Swearer, S. M., Siebecker, A., Johnsen-Frerichs, L., & Wang, C. (2010). Assessment of bullying/victimization: The problem of comparability across studies and across methods. In S. R. Jimerson, S. M. Swearer, & D. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 305-327). New York, NY: Routledge.

Thomas, H. J., Connor, J. P., & Scott, J. G. (2015). Integrating traditional bullying and cyberbullying: Challenges of definition and measurement in adolescents – a review. *Educational Psychology Review, 27*, 135-152. doi:10.1007/s10648-014-9261-7

Thornberg, R. & Jungert, T. (2013). Bystander behavior in bullying situations: Basic moral sensitivity, moral disengagement and defender self-efficacy. *Journal of Adolescence, 36,* 475-483. doi: 10.1016/j.adolescence.2013.02.003

Toblin, R. L., Schwartz, D., Hopmeyer Gorman, A., & Abou-ezzeddine, T. (2005). Social–cognitive and behavioral attributes of aggressive victims of bullying. *Journal of Applied Developmental Psychology, 26*, 329-346. doi:10.1016/j.appdev.2005.02.004

Topcu, Ç., & Erdur-Baker, Ö. (2012). Affective and cognitive empathy as mediators of gender differences in cyber and traditional bullying. *School Psychology International, 33,* 550-561. doi:10.1177/0143034312446882

Tremblay, R. E. (2000). The development of aggressive behaviour during childhood: What have we learned in the past century? *International Journal of Behavioral Development, 24*, 129-141. doi: 10.1080/016502500383232

Ttofi, M. M., & Farrington, D. P. (2008). Bullying: Short-term and long-term effects, and the importance of defiance theory in explanation and prevention. *Victims & Offenders, 3*, 289-312. doi:10.1080/15564880802143397

Ttofi, M. M., Farrington, D. P., & Lösel, F. (2012). School bullying as a predictor of violence later in life: A systematic review and meta-analysis of prospective longitudinal studies. *Aggression and Violent Behavior, 17*, 405-418. doi: 10.1016/j.avb.2012.05.002

Ttofi, M. M., Farrington, D. P., Lösel, F., & Loeber, R. (2011). The predictive efficiency of school bullying versus later offending: A systematic/meta-analytic review of longitudinal studies. *Criminal Behaviour and Mental Health, 21*, 80-89. doi: 10.1002/cbm.808

Tukey, J. W. (1977). *Exploratory data analysis*. Reading, MA: Addison Wesley.

Vaes, J., & Paladino, M. P. (2010). The uniquely human content of stereotypes. *Group Processes and Intergroup Relations, 13*, 23-39. doi: 10.1177/1368430209347331

van den Berg, Y. H. M., & Cillessen, A. H. N. (2013). Computerized sociometric and peer assessment: An empirical and practical evaluation. *International Journal of Behavioral Development, 37*, 68-76. doi:10.1177/0165025412463508

van den Berg, Y. H. M., Segers, E., & Cillessen, A. H. N. (2012). Changing peer perceptions and victimization through classroom arrangements: A field experiment. *Journal of Abnormal Child Psychology, 40*, 403–412. doi: 10.1007/s10802-011-9567-6

van der Graaff, J., Branje, S., de Wied, M., Hawk, S., van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: Gender differences in developmental changes. *Developmental Psychology, 50*, 881-888. doi: 10.1037/a0034325

van der Graaff, J., Meeus, W., de Wied, M., van Boxtel, A., van Lier, P. A., Koot, H. M., & Branje, S. (2016). Motor, affective and cognitive empathy in adolescence: Interrelations between facial electromyography and self-reported trait and state measures. *Cognition and Emotion, 30,* 745-761.

van Noorden, T. H. J., Bukowski, W. M., Haselager, G. J. T., Lansu, T. A. M., & Cillessen, A. H. N. (2016). Disentangling the frequency and severity of bullying and victimization in the association with empathy. *Social Development 1,* 176-192. doi: 10.1111/sode.12133

van Noorden, T. H. J., Cillessen, A. H. N., Haselager, G. J. T., Lansu, T. A. M., & Bukowski, W. M. (in press). Bullying involvement and empathy: Child and target characteristics, *Social Development*.

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2014). Dehumanization in children: The link with moral disengagement in bullying and victimization. *Aggressive Behavior, 40*, 320-328. doi:10.1002/ab.21522

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2015). Empathy and involvement in bullying in children and adolescents: A systematic review. *Journal of Youth and Adolescence, 44*, 637-657. doi:10.1007/s10964-014-0135-6

van Noorden, T. H. J., Haselager, G. J. T., Lansu., T. A. M., Cillessen, A. H. N., & Bukowski, W. M. (2015). Attribution of human characteristics and bullying involvement in childhood:Distinguishing between targets. *Aggressive Behaviour*. Advance online publication. doi: 10.1002/ ab.21634

Veenstra, R., Lindenberg, S., Munniksma, A., & Dijkstra, J. K. (2010). The complex relation between bullying, victimization, acceptance, and rejection: Giving special attention to status, affection, and sex differences. *Child Development, 81*, 480-486. doi: 10.1111/j.1467-8624-2009.01411.x

Veenstra, R., Lindenberg, S., Oldehinkel, A. J., De Winter, A. F., Verhulst, F. C., & Ormel, J. (2005). Bullying and victimization in elementary schools: A comparison of bullies, victims, bully/victims, and uninvolved preadolescents. *Developmental Psychology, 41*, 672-682. doi: 10.1037/0012-1649.41.4.672

Vezzali, L., Capozza, D., Stathi, S., & Giovannini, D. (2012). Increasing outgroup trust, reducing infrahumanization, and enhancing future contact intentions via imagined intergroup contact. *Journal of Experimental Social Psychology, 48*, 437-440. doi: 10.1016/j.jesp.2011.09.008

Viki, G. T., Winchester, L., Titshall, L., & Chisango, T. (2006). Beyond secondary emotions: The infrahumanization of outgroups using human-related and animal-related words. *Social Cognition, 24*, 753-775. doi: 10.1521/soco.2006.24.6.753

Volk, A. A., Camilleri, J. A., Dane, A. V., & Marini, Z. A. (2012). Is adolescent bullying an evolutionary adaptation? *Aggressive behavior, 38*, 222-238. doi: 10.1002/ab21418

Volk, A. A., Dane, A. V., & Marini, Z. A. (2014). What is bullying? A theoretical redefinition. *Developmental Review, 34*, 327-343. doi: 10.1016/j.dr.2014.09.001

Wang, J., Iannotti, R. J., & Nansel, T. R. (2009). School bullying among adolescents in the United States: Physical, verbal, relational, and cyber. *Journal of Adolescent Health, 45,* 368-375. doi:10.1016/j.jadohealth.2009.03.021

Warden, D., & Mackinnon, S. (2003). Prosocial children, bullies and victims: An investigation of their sociometric status, empathy and social problem-solving strategies. *British Journal of Developmental Psychology, 21*, 367-385. doi:10.1348/026151003322277757

Waytz, A., & Epley, N. (2012). Social connection enables dehumanization. *Journal of Experimental Social Psychology, 48*, 70-76. doi: 10.1016/j.jesp.2011.07.01

Whitney, I., & Smith, P. K. (1993). A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research, 35*, 3-25. doi:10.1080/0013188930350101

Williford, A., Boulton, A. J., & Jenson, J. M. (2014). Transitions between subclasses of bullying and victimization when entering middle school. *Aggressive Behavior, 40*, 24-41. doi: 10.1002/ab.21503

Woods, S., Wolke, D., Nowicki, S., & Hall, L. (2009). Emotion recognition abilities and empathy of victims of bullying. *Child Abuse & Neglect, 33*, 307-311. doi: 10.1016/j.chiabu.2008.11.002

Zahn-Waxler, C., Cole, P. M., & Barrett, K. C. (1991). Guilt and empathy: Sex differences and implications for the development of depression. In J. Garber & K. A. Dodge (Eds.), *The development of emotion regulation and dysregulation* (pp.243-272). New York: Cambridge University Press.

Zhou, Q., Valiente, C., & Eisenberg, N. (2003). Empathy and its measurement. In S. J. L. C. R. Snyder (Ed.), *Positive psychological assessment: A handbook of models and measures* (pp. 269-284). Washington, DC: American Psychological Association.

Publications

INTERNATIONAL PUBLICATIONS

Lansu, T. A. M., van Noorden, T. H. J., & Deutz, M. H. F. (under revision). *How peer victimization relates to distorted vs. sensitive social cognition: Perception, mood and need fulfillment in response to Cyberball inclusion and exclusion.*

Pouwels, J. L., Scholte, R. H. J., van Noorden, T. H. J., & Cillessen, A. H. N. (2016). Interpretations of bullying by bullies, victims, and bully-victims in interactions at different levels of abstraction. *Aggressive Behavior, 42*, 54-65. doi: 10.1002/ab.21605

Sandstrom, M. J., Deutz, M. H. F., Lansu, T. A. M., van Noorden, T. H. J., Cillessen, A. H. N., & Karremans, J. C. (under review). *Unanimous vs. partial rejection: How the ratio of inclusive vs. exclusive members influence the impact of ostracism on children's mood and fundamental needs.*

Strick, M., van Noorden, T. H. J., Ritskes, R. R., de Ruiter, J. R., & Dijksterhuis, A. (2012). Zen meditation and access to information in the unconscious. *Consciousness and Cognition, 21,* 1476-1481. doi: 10.1016/j.concog.2012.02.010

van Noorden, T. H. J., & Bukowski, W. M. (in press). Social development. In A. Slater and G. Bremner (Eds.), *An introduction to developmental psychology (3rd Ed)*. Oxford, UK: Blackwell.

van Noorden, T. H. J., Bukowski, W. M., Haselager, G. J. T., Lansu, T. A. M., & Cillessen, A. H. N. (2016). Disentangling the frequency and severity of bullying and victimization in the association with empathy. *Social Development, 1*, 176-192. doi: 10.1111/sode.12133

van Noorden, T. H. J., Cillessen, A. H. N., Haselager, G. J. T., Lansu., T. A. M., & Bukowski, W. M. (in press). Bullying involvement and empathy: Child and target characteristics. *Social Development.*

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2015). Empathy and involvement in bullying in children and adolescents: A systematic review. *Journal of Youth and Adolescence, 44*, 637-657. doi: 10.1007/s10964-014-0135-6

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2014). Dehumanization in children: The link with moral disengagement in bullying and victimization. *Aggressive Behavior, 40,* 320-328. doi: 10.1002/ab.21522

van Noorden, T. H. J., Haselager, G. J. T., Lansu., T. A. M., Cillessen, A. H. N., & Bukowski, W. M. (2015). Attribution of human characteristics and bullying involvement in childhood: Distinguishing between targets. *Aggressive Behaviour.* Advance online publication. doi: 10.1002/ab.21634

NATIONAL PUBLICATIONS

Lansu, T. A. M., Deutz, M. H. F., & van Noorden, T. H. J. (2013). Het effect van Cyberball buitensluiting op stemming en behoeftevervulling in kinderen: De rol van gepest worden in de klas. In R. Dotsch, E. Papies, T. Pronk, B. Rutjens, E. Ufkes, & J. van der Toorn (Eds.), *Jaarboek sociale psychologie 2013* (pp. 125-128). Groningen: ASPO Pers.

van Noorden, T. (2014)."Pesters hebben geen empathie": Onderzoek naar de samenhang tussen pesten, empathie en moraliteit. In T. van Noorden & Y. van den Berg (Eds.), *Bouwen aan de basis: Onderzoek van de afdeling ontwikkelingspsychologie van de Radboud Universiteit* (pp. 56-59).

van Noorden, T. H. J., Haselager, G. J. T., Cillessen, A. H. N., & Bukowski, W. M. (2013). Dehumanisering en de link met moral disengagement in pestgedrag. In R. Dotsch, E. Papies, T. Pronk, B. Rutjens, E. Ufkes, & J. van der Toorn (Eds.), *Jaarboek sociale psychologie 2013* (pp. 157-160). Groningen: ASPO Pers.

van Noorden, T. & van den Berg, Y. (Eds.). (2014). *Bouwen aan de basis: Onderzoek van de afdeling ontwikkelingspsychologie van de Radboud Universiteit.*

Curriculum Vitae

Tirza van Noorden was born on April 1st 1987 in Voorburg, The Netherlands. Alongside her obsession for horses and dogs, she became interested in human behavior and started studying Psychology at the Radboud University Nijmegen in 2005. She received her Bachelor's degree in Social Psychology in 2008 and graduated (cum laude) from the Research Master Behavioural Science in 2010. During the summer of 2009, she studied Evolutionary Psychology at the University of Sussex. In 2011, Tirza started her PhD project on mechanisms in bullying and victimization at the Behavioural Science Institute at Radboud University. During this period, she also held a teaching position at the department of Developmental Psychology. In 2015, Tirza moved to Montreal, Canada, to work as a postdoctoral researcher at the Centre de Recherche Development Humain at Concordia University. In November 2015, she rejoined her colleagues at the department of Developmental Psychology at the Radboud University as a lecturer. Since April 2016, Tirza is also a postdoctoral researcher at the department of Work and Organizational Psychology, working on a doping intervention program among adolescent elite athletes.

Dankwoord

(Acknowledgements)

Zo, het zit erop.

Het opschrijven van deze vier woorden roept direct gemengde gevoelens bij me op. Aan de ene kant voelt het echt super om een periode van vijf jaar hard werken eindelijk af te kunnen sluiten met een proefschrift. Aan de andere kant ben ik misschien nog niet helemaal klaar om het los te laten. Het gaat hier namelijk niet alleen om een promotie project dat wordt afgesloten, maar ook om een periode als PhD student. Ik kijk met veel warme gevoelens terug op deze periode en wil dan ook graag de mensen bedanken die hieraan bij hebben gedragen.

Door een heel team van (co)promotoren stond ik er nooit alleen voor. Toon, jij bent voor mij veel meer dan een begeleider geweest: Je was een mentor bij wie ik altijd terecht kon voor advies en voor dat duwtje in de rug wanneer ik weer eens aan mezelf twijfelde. Dit in combinatie met jouw enthousiaste reacties op goed nieuws (zoals een geaccepteerd paper, toelating voor een internationaal congres, of nieuwe lading chocolade) heeft ervoor gezorgd dat ik me altijd gesteund voelde. Je hebt me kansen gegeven om verder te ontwikkelen als onderzoeker, docent, maar vooral ook als mens. Ik kan je daar niet genoeg voor bedanken.

Gerbert, ook jou wil ik bedanken voor je begeleiding. Jouw kritische houding door het project heen heeft mij ertoe gezet om zaken van verschillende invalshoeken te bekijken. We zaten niet altijd op één lijn en als ik jou wilde overtuigen moest ik met goede argumenten komen. Hierdoor heb ik geleerd buiten mijn comfort-zone te treden, wat de ontwikkeling van mijn academische en persoonlijke vaardigheden verder heeft gestimuleerd.

Bill, even at a distance of 5500 km you were a wonderful supervisor. Your emails were always full with encouraging words, cryptic jokes, stories, and random sports updates or bets (actually, our conversations in person were no different). You broadened my perspective in research and beyond. I am also very grateful for your invitations to spend time in your lab – first as a visiting PhD student and later as a Postdoc (while finishing my dissertation). I don't think that you are aware of the impact that my time in Montreal has had on me as a person, but believe me when I say that it has been a life-changing experience for which I am forever grateful.

Tessa, hoewel jij pas later officieel bij mijn PhD project werd betrokken, was jouw invloed er zeker niet minder om. Je stapte moedig in op een moment dat het wat moeizamer liep binnen het project en profileerde je in mijn ogen als een redder-in-nood. Ik voelde me door jou altijd begrepen en gesteund. Wanneer ik mijn argumenten niet goed kon verwoorden, wist jij toch altijd precies wat ik bedoelde en hielp je me om het uit te werken. Jouw passie

en kwaliteiten zijn een ware inspiratie en ik heb oprecht genoten van jouw begeleiding. Ik ben dan ook ontzettend blij dat we onze samenwerking voort hebben gezet buiten het proefschrift.

Naast mijn (co)promotoren wil ik ook heel graag mijn andere collega's van ontwikkelingspsychologie bedanken. Ik heb me altijd thuis gevoeld op de afdeling en genoten van de vele uitjes, etentjes, bowling events, spelletjesavonden, en pizza-parties in de – inmiddels gerestylede – pantry. Dat mijn dagelijkse lunches vaak langer duurden dan gepland, kwam door jullie.

Ik wil een aantal collega's in het bijzonder bedanken. Met name mijn roomies Ili en Erik hebben ervoor gezorgd dat ik vaak met een grote grijns achter mijn bureau zat. Ili, jij wist altijd de innerlijke blije kip in mij naar boven te halen en ik denk dan ook met veel plezier terug aan onze Waldorf & Statler imitaties, bureaustoel-races, trampolinespringkunsten, volksdans repetities, en vele andere achterlijke acties. Maar naast mijn partner in crime was je ook een enorme steun in moeilijke tijden en ik ben dankbaar voor alle goede gesprekken die we over de jaren heen hebben gevoerd. Erik, hoewel Ili mijn originele feeder was (waar we achter kwamen nadat ik 2 kg af was gevallen toen Ili 1,5 week op congres was), tilde jij de voedsel obsessie op het kantoor naar een nieuw niveau. Waar jij was, was eten. Je wist Ili en mij dan ook binnen no-time te conditioneren voor De Zwarte Kast: zodra we de sleutel om hoorden gaan, stonden we al vol verwachting te kwijlen, want een open zwarte kast betekende toegang tot jouw zeer uitgebreide snoepcollectie (zogenaamd voor onderzoek, maar wij weten wel beter). Jouw paaldans act heb ik helaas nog nooit mogen aanschouwen, maar ik heb met veel plezier de dansvloer met je gedeeld in Austin (hoewel ik me daar niet alles meer van kan herinneren). Ik heb ontzettend veel geluk gehad met jullie beiden als roomies en ben enorm blij dat jullie aan mijn zijde staan tijdens mijn verdediging.

Ik wil ook de overige Peer Labgroup leden heel erg bedanken. Bill (Burk), Geert, Henrike, Loes, Reine, Sabine, en Yvonne, jullie eerlijke feedback op mijn voorstellen en papers hebben ruim bijgedragen aan de kwaliteit ervan. Geen enkel detail ging aan jullie voorbij en ik waardeer de tijd en energie die jullie hierin hebben gestoken enorm. Daarnaast heb ik ook met volle teugen genoten van al onze activiteiten buiten de meetings, zoals de congressen en bijbehorende team-uitjes. Met veel plezier denk ik terug aan onze tour door Seattle, het kajakken in Austin, en het oprennen van de trappen in Philadelphia als ware Rockys .

Willem, ik ben jou en Irene ontzettend dankbaar dat jullie me in (tuin)huis namen toen ik even geen onderdak had door de vertraging van mijn Canadese visum. Hinke, onze goede gesprekken voor het slapen gaan en de hardlooprondjes om het meer op de campus maakte

de Dyadic Data Analyses cursus aan de University van Connecticut een stuk gezelliger. Gabry en Sterre, onze gezellige theeleutmomenten zijn de overuren (ter compensatie) meer dan waard. Marieke, bedankt voor al je hulp bij van alles en nog wat, en de vriendelijke babbel in de ochtend als het merendeel van de afdeling nog uitgestorven is.

Er zijn ook een aantal collega's buiten de afdeling ontwikkelingspsychologie die ik wil bedanken. Meta, bedankt voor je fantastische humor, je strakke organisatie skills en je luisterend oor. Ralph, bedankt voor je hulp achter de schermen en je soms vermakelijk stellige opmerkingen. Leden van het BSI PhD Platform, bedankt voor de gezellige interdisciplinaire momenten en het vertrouwen in mij als voorzitter. Elke, ik heb ontzettend genoten van onze 6 weken in Montreal en had geen enkel moment willen missen (zelfs niet die acrobatiek act die toch wel iets heel anders bleek te zijn dan dat we hadden verwacht). I would also like to thank my colleagues in Montreal, Bianca, Joanna, Krista, Megan, Melisa, Poppy, and Ryan, for taking me in, helping me, and stuffing me with delicious cakes. Megan, you were so much more than a colleague, turning work into a social event and making sure I never felt lonely.

Ik wil ook graag alle kinderen, leerkrachten en scholen die aan het onderzoek hebben deelgenomen bedanken. Zonder jullie medewerking was dit proefschrift niet mogelijk geweest (en zonder jullie tekeningen en gevatte opmerkingen ook een stuk minder leuk). De dataverzameling had ik natuurlijk nooit in mijn eentje kunnen doen en ik ben dan ook enorm dankbaar voor alle hulp van Marike, Tommy, en alle andere studenten die mee hebben geholpen. Giovanni, jij ook enorm bedankt voor je hulp bij het verwerken van de gegevens.

Naast de mensen die direct aan mijn werk verbonden zijn geweest, wil ik graag nog een aantal mensen bedanken die – misschien zelfs zonder er bewust van te zijn – toch een belangrijke rol hebben gespeeld in mijn functioneren als onderzoeker. Want ondanks dat ik met ontzettend veel plezier aan mijn PhD project heb gewerkt, was de nodige afleiding soms meer dan welkom.

Inge, Larissa, Moniek, Nicole, en Noortje, wat bof ik toch met zulke lieve vriendinnen. Ik ben ontzettend dankbaar voor al onze meidenavondjes, weekendjes weg, Sinter-Kerst-en-Nieuw dobbelavonden, en vele app-berichtjes die er altijd voor zorgden dat ik mijn hoofd even lekker leeg kon maken. Ik ben jullie ook enorm dankbaar voor jullie begrip als ik weer eens te laat kwam of me zelfs afmeldde door de drukte van het project (of gepikeerd reageerde als één van jullie vroeg wanneer ik nu eigenlijk 'afstudeerde'). Moniek, heel erg bedankt dat je deze mooie cover wilde maken: hierdoor is het proefschrift nog waardevoller geworden.

Anoek, Janine, en Renate, bedankt voor alle momenten dat jullie me flink hebben laten zweten: onze hardlooprondjes en saunadates zorgden er elke keer weer voor dat ik alle drukte van me af kon laten glijden.

Pleun, Rian en Jeroen, wat zijn we toch een bont gezelschap, verbonden door de liefde voor paarden, katten en andere beessies. Onze vriendschap is inmiddels de manege al lang ontgroeid, maar de afgelopen jaren was de zaterdagochtend het moment waar ik de hele week naar uitkeek. Samen met Renate en Esther vormen we misschien niet de meest serieuze groep, maar zeker wel de gezelligste. Jolien, ook jou wil ik ontzettend bedanken want door jouw lessen, waarin leren en plezier onlosmakend verbonden zijn, kon ik de week weer aan.

Mam en pap, misschien laat ik het niet altijd merken, maar ik ben jullie ontzettend dankbaar. Van laptopkisten in en uit de auto sjouwen tot bakjes wortelenstamp, jullie steun kwam in vele vormen. Door jullie opvoeding ben ik wie ik ben, en daar ben ik blij om. Oma, hoewel je meestal geen idee had van wat ik nu precies deed, zag je wel hoe belangrijk het voor mij was en was je altijd trots. Manja, ik nam graag een vrije dag op om met jou en mama naar de Libelle zomerweek/Margriet winterfair/huishoudbeurs te gaan. Maar ook kwam ik graag naar jou en Jean-Paul om even mee te kunnen genieten van jullie gezinnetje: of ik nu een topweek had gehad of juist een rotweek, alles werd vergeten door de knuffels van Sem en Esmée.

Tot slot, lieve Tom, jij bent mijn grootste liefde, beste vriend, sparringpartner, en inspiratiebron in één. Zonder jou was ik nooit zover gekomen. In moeilijke tijden raapte jij me –letterlijk– op van de vloer en in leuke tijden stonden we samen stil bij hoe goed we het hadden. Mijn mooiste geluksmomentjes van de afgelopen jaren zijn gevormd in jouw gezelschap: fietsend vogels spotten op Ameland, met de ezeltjes wandelen op de Hoge Veluwe, en het voeren van ijsklontjes aan de katten op een hete dag in Montreal. Met jou kan ik niet alleen de hele wereld aan, maar kan ik er ook nog eens intens van genieten!

Behavioural
Science
Institute

Radboud University